

Information **TECHNOLOGY** *Training*

EXCELLENT INSTRUCTION.

Our instructors are experts in the latest technology. All of our courses are taught in state-of-the-art labs.



NO TIME FOR A CLASSROOM?

We have an extensive list of online technology courses, including a certificate program in network security.



WHERE ARE YOU?

Web mapping, satellite imagery, and geographic information systems are just a few of the things you can learn in our GIS courses.



FROM THE SERVER ROOM TO THE LAPTOP.

From Oracle, Cisco and CompTIA to Microsoft and Unix, we cover all the world's systems.



July 2006 – September 2007

The Company We Keep

For 85 years, the Graduate School, USDA has aligned itself with highly respected educators, organizations and agencies. We constantly search for ways to help bring bright minds and experienced educators together. Visit the Graduate School Web site to read more about our partnerships and affiliations and how they can help you achieve your career and organizational goals.

Our faculty is composed of over **forty highly experienced instructors** who bring the latest technology into the classroom.

GS

Our facilities include state-of-the-art computer labs with the latest software, and we are conveniently located near the **L'Enfant Plaza Metro Station** in a newly renovated building.

GS

We provide certification training for the popular **CompTIA A+ and Network+ certifications**.

GS

We provide training for the **Microsoft Certified Desktop Support Technician (MCDST)**.

GS

We are an Authorized **Cisco® Training Center**.

GS

We have partnered with **Capitol College of Maryland**, a Center of Academic Excellence in Information Assurance designated by the National Security Agency, to provide online network security courses.

 **CompTIA**

The CompTIA logo is a registered trademark of CompTIA (the Computer Technology Association). All rights reserved.

Graduate School, USDA Information Technology 2007

TABLE OF CONTENTS

Orientation and Professional Skills

Introduction to Information Technology, INF07004D	4
IT Management and Administration for Technical Managers and Technical Professionals, ITEC7723T	4

Databases

Introduction to Database and Database Design, SOFT7004T	5
Microsoft Access 2003: Introduction, DBAS7115T	6
Microsoft Access 2003: Intermediate, DBAS8115T	6
Microsoft Access 2003: Advanced Applications Development, DBAS9101T	7
Microsoft Access 2003 (Introduction through Advanced) (Online), DBAS9715T	7
Microsoft Access 2003: Introduction (Online), DBAS7815T	7
Microsoft Access 2003: Intermediate (Online), DBAS8815T	7
Microsoft Access 2003: Advanced (Online), DBAS9815T	7

Enhancing Database Performance

Systems Analysis and Design: An Introduction, SOFT7713T	8
Visual Basic, Version 6.0: Introduction, COMP7963T	8

Oracle

Oracle: Introduction, CMAN7710T	10
SQL (Oracle 10g): Introduction, CMAN7800T	10
Oracle 10g Database Administration I: Implementation and Administration, CMAN7902T	11
Oracle 10g Database Administrator Certified Associate (OCA), CMAN9101T	11

Desktop Publishing

Desktop/Electronic Publishing: Introduction, DTOP7978T	12
Adobe Acrobat: Introduction, DTOP7913T	13
Adobe Illustrator: Introduction, DTOP7901T	13
Adobe InDesign, DTOP7988T	13
Adobe Photoshop: Introduction, DTOP7769T	14
Adobe Photoshop: Intermediate, DTOP8869T	14

Enterprise Architecture

Introduction to Enterprise Architecture (NEW), ENTR7000T	15
Implementing an Enterprise Architecture (NEW), ENTR7001T	16
EA Organization and Governance (NEW), ENTR8000T	16
Service-Oriented Architectures – Components and Services (NEW), ENTR8001T	17

Performance Reference Models and Linkage to Strategic Plans (NEW), ENTR9000T	17
Technical Architectures (NEW), ENTR8002T	18
Data Architectures (NEW), ENTR8003T	18
EA and Business Modeling – Concepts and Practices (NEW), ENTR9001T	19
Facilitating EA Communication and Buy-In (NEW), ENTR9003T	19
Applied Enterprise Architecture: Affecting Strategic Change (NEW), ENTR9002T	20
Certificate of Accomplishment in Enterprise Architecture (NEW), ENTR9100T	21

Geographic Information Systems

Introduction to GIS Software: ESRI ArcGIS 9.x, GIST7000T	22
Introduction to GIS Technologies, GIST7001T	23
Cartographic Issues: Map Projections and Map Design, GIST8000T	23
GIS Project Development and Process, GIST8001T	23
Spatial Databases and Database Development, GIST8002T	24
Spatial Analysis Using GIS, GIST8003T	24
GIS Applications: Environmental and Natural Resource Management, GIST9000T	24
GIS Applications: Urban Planning and Development, GIST9001T	25
GIS Tools and Techniques: Raster and 3D Modeling, GIST9002T	25
GIS Tools and Techniques: Remote Sensing for GIS, GIST9003T	25
GIS Applications: Business Intelligence, GIST9004T	26
GIS Applications: National and Homeland Security, GIST9005T	26
GIS Tools and Techniques: GIS Program Development and Management, GIST9006T	26
GIS Technical Certificate (NEW), GIST8900T	27
GIS Professional Certificate (NEW), GIST9900T	28

Integration

Microsoft Office 2003 Integration, INTE7853T	29
Voice Recognition Using Microsoft Office, INTE7873T	30

Internet

ColdFusion Application Development, INET7740T	31
HTML Programming: Introduction, INET7712T	32
HTML Programming: Intermediate, INET8835T	32
HTML Programming (Introduction through Advanced) (Online), INET9712T	32
Human Interface Design, INET9931T	33

Java: Introduction, INET7719T	33
Macromedia Dreamweaver: Introduction, INET7885T	34
Macromedia Dreamweaver: Advanced, INET9885T	34
Macromedia Fireworks: Introduction, INET8110T	34
Macromedia Flash: Introduction, INET7710T	35
Microsoft FrontPage 2003: Introduction, INET7790T	35
Microsoft FrontPage 2003: Advanced, INET9942T	35
Microsoft FrontPage 2003 (Introduction through Advanced) (Online), INET9842T	36
XML for the Web: Introduction, INET7550T	36

Information Technology Infrastructure Library (ITIL)

ITSM Executive Awareness Seminar (NEW), ITEC7726T	37
ITIL Service Management Foundation Course (NEW), ITEC7004T	37
Change, Configuration and Release Management – Practitioner (NEW), ITEC8001T	38
ITIL Service Level Management – Practitioner (NEW), ITEC8000T	38

Network and Operating Systems

A+ Core Module (Online), TCOM9790T	40
A+ Core Module, TCOM9990T	40
A+ Operating Systems (Online), TCOM9780T	41
A+ Operating Systems, TCOM9980T	42
Network+ Certification, (Online) TCOM9795T	42
Network+ Certification, COM9995T	42
Troubleshooting and Maintaining the PC, Pentium II-IV and Compatibles, DWIN9933T	43
Advanced Troubleshooting and PC Configuration, DWIN8912T	43
Microsoft Windows XP: Introduction, DWIN7010T	43
Implementing and Supporting Microsoft Windows XP Professional, TCOM9964T	44
Managing and Maintaining a Microsoft Windows Server 2003 Environment, TCOM9979T	44
Implementing, Managing and Maintaining a Microsoft Windows Server 2003 Network Infrastructure, TCOM9987T	44
UNIX System V: Introduction, COMP7891T	45
Certificate of Accomplishment – A+ Certification, TCOM9985T	46
Microsoft Certified Desktop Support Technician (MCDST) Certificate, TCOM8980T	47

Authorized Cisco Training

Introduction to Cisco Networking Technologies (INTRO), TCOM7415T	48
Interconnecting Cisco Networking Devices (ICND), TCOM8415T	49
Cisco Boot Camp, TCOM8615T	49
Building Scalable Cisco Internetworks (BSCI), TCOM7515T	50
Building Cisco Multilayer Switched Networks (BCMSN), TCOM7516T	50
Building Cisco Remote Access Networks (BCRAN), TCOM7517T	51
Cisco Internetwork Troubleshooting (CIT), TCOM8515T	52
Securing Cisco Network Devices (SND) v1.0, TCOM9931T	52
Securing Networks with PIX and ASA (SNPA) v4.0, TCOM9933T	53
Securing Networks Using Cisco Routers and Switches (SNRS) v1.0, TCOM9932T	54
Implementing Cisco Intrusion Prevention System (IPS) V5.0, TCOM9934T	54
Cisco Secure Virtual Private Networks (CSVPN), TCOM9418T	55
Implementing Cisco Quality of Service (QOS), TCOM8915T	56
Cisco Voice Over IP (CVOICE), TCOM8916T	56
IP Telephony Troubleshooting (IPTT), TCOM8917T	57
Cisco IP Telephony Part 1 (CIPT1), TCOM8918T	57
Cisco IP Telephony Part 2 (CIPT2), TCOM8919T	58

Implementing Cisco Voice Gateways and Gatekeepers (GWGK), TCOM8920T	58
--	----

Presentations

Microsoft PowerPoint 2003: Introduction, PRES7950T	59
Microsoft PowerPoint 2003: Intermediate, PRES8950T	60
Microsoft PowerPoint 2003 (Introduction through Advanced) (Online), PRES9750T	60
Microsoft PowerPoint 2003: Introduction (Online), PRES7868T	60
Microsoft PowerPoint 2003: Intermediate (Online), PRES8868T	60

Project Management

Project Management for IT: Application and Integration, PROJ7602T	61
Microsoft Project 2003, PROJ7980T	62
Fundamentals of IT Management and Capital Planning, TECH7705T	62

Security

Introduction to Information Security, SRTY7000T	63
Fundamentals of Computer Security for Federal Information Systems, SRTY7768T	64
Advanced Intrusion Detection Implementation, SRTY9004T	64
Certified Information System Security Professional (CISSP) Prep, SRTY9100T	64
Network Systems Security Concepts (Online), SRTY7020T	65
Secure Information Transfer and Storage (Online), SRTY8020T	65
Computer Forensics and Incident Handling (Online), SRTY9020T	66
Internal Protection (Online), SRTY9120T	66
Vulnerability Mitigation (Online), SRTY9989T	66
Wireless Network Security (Online), SRTY9990T	67
Wi-Fi Wireless Networking Technology and Security, SRTY7303T	67
Wireless Laptop Setup and Security, SRTY7304T	68
Security + (Online), SRTY9104T	68
Information Security Specialist Certification Program, SRTY9999T	69
Security Management Certificate (Online), SRTY9988T	70

Spreadsheets

Microsoft Excel 2003: Introduction, SPRD7968T	71
Microsoft Excel 2003: Intermediate, SPRD8968T	72
Microsoft Excel 2003: Advanced, SPRD9952T	72
Microsoft Excel 2003 (Introduction through Advanced) (Online), SPRD9768T	72
Microsoft Excel 2003: Introduction (Online), SPRD7878T	73
Microsoft Excel 2003: Intermediate (Online), SPRD8878T	73
Microsoft Excel 2003: Advanced (Online), SPRD9878T	73

Word Processing

Microsoft Word 2003: Introduction, WORD7968T	74
Microsoft Word 2003: Intermediate, WORD8968T	74
Microsoft Word 2003: Advanced, WORD9818T	75
Microsoft Word Macros Using VBA, WORD9882T	75
Microsoft Word 2003 (Introduction through Advanced) (Online), WORD9768T	76
Microsoft Word 2003: Introduction (Online), WORD7868T	76
Microsoft Word 2003: Intermediate (Online), WORD8868T	76
Microsoft Word 2003: Advanced (Online), WORD9868T	76

General Information 77

Subject/Title Index 82

FROM THE EXECUTIVE DIRECTOR

The Graduate School, USDA has provided training solutions for the federal workforce for 85 years, and information technology (IT) training for more than 25 years. Our customers now include employees from state and local governments, as well as government contractors and private individuals. We continue to evaluate and refine our IT programs to meet your training needs and to provide the best possible education on new technology and software. We continually strive to be the training choice of all government professionals.



FY07 promises to be a particularly auspicious year for the School, as governments embrace new technologies and management systems—this year's catalog features new programs in enterprise architecture (EA), geographic information systems (GIS), Information Technology Infrastructure Library (ITIL®) and authorized Cisco training. If any of these subjects are new to you, please take a few moments to review the introductory courses in each sequence to learn how they can benefit you. We continue to offer comprehensive programs in databases, Internet, Microsoft Office, network and operating systems, security and more. You will also find a variety of distance education options throughout this year's catalog.

Certifications and advanced degrees continue to be high priorities for IT professionals, and the School can help you achieve both. CompTIA A+, CompTIA Network+, CCNA® and MCDST are a sampling of the certifications for which we provide training. As a sponsored organization of Tech 2000, Inc., the Graduate School is a Cisco® Authorized Training Center. Network security professionals can work toward a Masters in Network Security with our educational partner, Capitol College of Maryland. In addition, we continue to offer numerous IT certificate programs to give you a complete skill set in a desired specialty. Please contact our IT training consultants at appliedtech@grad.usda.gov or (202) 314-3600 to discuss how best to meet your educational goals.

A handwritten signature in black ink, reading "Jerry Ice". The signature is stylized with a large, looping "J" and a cursive "Ice".

Jerry Ice, Ed.D.
Executive Director

ORIENTATION AND PROFESSIONAL SKILLS

Introduction to Information Technology

INF07004D

This course covers the fundamental concepts, terminology and laws that form the foundation of information systems, technology management and e-government. Participants learn from discussions of the objectives of e-government and the systems used to support it. Attention is also devoted to the problems to be addressed by computer security behaviors and methods.

What you will learn

- Foundations of information technology
- Components of hardware
- Types of available software—systems and applications
- Important aspects of networks, telecommunications and the Internet
- Computer security issues

Who should attend

This course is designed for individuals with no prior computer experience.

Course Objectives

Upon completion of this course you will be able to:

- Discuss the advantages and disadvantages of computer systems
- Explain hardware and software processes
- Identify key components of local area networks and network topologies
- Explain the Internet, intranet and TCP/IP
- Discuss major threats to computer security

3 Days | 1.8 CEU | Tuition \$695

Schedule:

September 11-13, 2006 Washington, DC
January 23-25, 2007 Washington, DC
June 4-6, 2007. Washington, DC
September 10-12, 2007 Washington, DC

IT Management and Administration for Technical Managers and Technical Professionals

ITEC7723T

This workshop provides skills and knowledge for managing dynamic computer situations—local area networks, database environments and Web site groups. Participants gain new perspectives and learn straightforward strategies to build appreciation and support for technical operations as well as methods to keep and motivate technical staff.

What you will learn

- Techniques for dealing with projects and technical personnel supervision
- Critical issues and concerns, relating to technical systems, that involve users and top management
- How to gain support for upgrade and network projects by working with decision makers and user groups
- How to motivate and keep well-trained technical staff
- Career planning and management techniques for IT professionals
- Gain an overview of information technology as a vital part of the entire organization and enterprise

Who should attend

IT managers, programmers, designers and other technical personnel with management and administrative responsibilities will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Apply management techniques to develop options and gain support for the preferred alternative
- Present upgrade and other operational options to executives, managers and staff
- Develop policies to keep and motivate technical staff
- Recognize the dynamics of managing technical environments
- Plan, create and manage cost-effective environments and networks

Prerequisite: Experience working in a technical environment with management and administrative responsibilities.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

December 4-6, 2006 Washington, DC
September 5-7, 2007. Washington, DC

DATABASES

Introduction to Database and Database Design

SOFT7004T

This workshop focuses on relational database concepts and terminology and the role of database design in the context of the system life cycle process. Basic database fundamentals for relational, object-relational and object-oriented database systems are also presented. Participants design and develop logical models, apply normalization rules and map normalized models to physical models using CASE and other appropriate software tools. Other topics include the presentation of standards, the uses of SQL and OQL, data warehouse, data administration and database administration.

What you will learn

- Relational, object-relational and object-oriented database systems
- CASE and other tools to develop logical models with entity relationship modeling and UML modeling techniques
- Normalization rules and mapping of logical database models to physical database models
- Client/server architecture
- Uses of SQL and OQL
- The roles and tasks of administration

Who should attend

This course is designed for computer system analysts, programmers, database analysts, database designers, application developers, technical managers and interested individuals who wish to learn to develop database applications and who have met the prerequisite.

Course Objectives

- Utilize the tools in database design
- Apply the Entity Relationship (ER) model and the Unified Modeling Language (UML) techniques and normalization to the database design process
- Develop conceptual, logical and physical designs
- Discuss concepts and issues related to client/server databases
- Compose and apply queries (SQL and OQL) for database access
- Describe and discuss how transaction management, concurrency control and recovery services maintain the consistent state of a database

Prerequisite: Systems Analysis and Design: An Introduction (SOFT7713T) or two years of systems development work experience.

5 Days | 3.0 CEU | Tuition \$1,295

Schedule:

August 7-11, 2006 Washington, DC
January 8-12, 2007 Washington, DC
August 6-10, 2007 Washington, DC

Rest assured.

When you register online, your credit card and registration information cannot be viewed by unauthorized individuals.

www.grad.usda.gov

Microsoft Access 2003: Introduction

DBAS7115T

Microsoft Access is a relational database management system and development environment used to organize, access and share information within the Windows family of operating systems. As a computer application, Microsoft Access utilizes object-based technology so that both novices and power users can use databases on their desktop and/or in their network enterprise. This two-day, hands-on introductory workshop is designed to teach basic database management concepts: identifying database components, creating database tables and managing those tables through the use of queries and filters.

What you will learn

- Database components and basic relational database concepts
- Database window layout and features in the Access environment
- Database creation using tables and table modification
- Field properties
- Table relationships and lookup fields
- Importing data into tables
- Database referential integrity
- Creating and modifying queries and filters with the use of comparison operators and calculations

Who should attend

This course is for users who wish to learn database functions and design.

Course Objectives

Upon completion of this course you will be able to:

- Discuss relational database design and create a new database
- Perform database record updates: adding, editing and deleting within a database table
- Set field properties and utilize filters and comparison operators in order to select records from existing databases
- Produce forms utilizing Form Wizard and AutoForm to enter and maintain data
- Present formatted printouts incorporating different fonts and attributes, headers and footers, and summarized data utilizing Auto Report and Report Wizard.

Prerequisite: Knowledge of Microsoft Windows.

2 Days | 1.2 CEU | Tuition \$695

Schedule:

September 11-12, 2006 Washington, DC
 October 30-31, 2006 Washington, DC
 December 11-12, 2006 Washington, DC
 January 2-3, 2007 Washington, DC
 March 19-20, 2007 Washington, DC
 April 16-17, 2007 Washington, DC
 May 14-15, 2007 Washington, DC
 June 4-5, 2007 Washington, DC
 July 9-10, 2007 Washington, DC
 August 6-7, 2007 Washington, DC
 September 10-11, 2007 Washington, DC

Microsoft Access 2003: Intermediate

DBAS8115T

This two-day intermediate workshop builds upon basic database concepts and offers training in the development of multiple database relationships. Advanced properties of forms, reports and queries are presented. Additionally, creating and modifying charts, creating filters, joining tables in queries, working with input masks, and creating and utilizing macros are covered.

What you will learn

- Table relationships and table keys
- Establishing relationships between tables
- Lookup fields
- Subform usage
- Input masks to maintain data integrity
- Advanced reports, forms and queries
- Data access pages
- Importing and exporting data over the Web
- XML documents

Who should attend

Users who wish to learn more advanced database functions will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Create lookup fields to add data to databases
- Produce subforms to display data from tables or queries that have a one-to-many relationship
- Create a form using Design View and apply calculated controls to display totals and other computations
- Produce queries using joined tables
- Save forms and reports as data access pages so that intranet/Internet access can be achieved
- Compose Extensible Markup Language (XML) documents for importing and exporting data on the Web

Prerequisite: Microsoft Access 2003: Introduction (DBAS7115T).

2 Days | 1.2 CEU | Tuition \$695

Schedule:

August 8-9, 2006 Washington, DC
 September 13-14, 2006 Washington, DC
 November 1-2, 2006 Washington, DC
 December 13-14, 2006 Washington, DC
 January 4-5, 2007 Washington, DC
 March 21-22, 2007 Washington, DC
 May 16-17, 2007 Washington, DC
 June 6-7, 2007 Washington, DC
 July 11-12, 2007 Washington, DC
 August 8-9, 2007 Washington, DC
 September 12-13, 2007 Washington, DC

Microsoft Access 2003: Advanced Applications Development

DBAS9101T

Build on the intermediate database concepts of Microsoft Access. Advanced controls such as the Performance Analyzer, combo boxes and dialog boxes are presented. Other content includes macro development, custom switchboards and the use of utilities such as the database splitter and the linked table manager.

What you will learn

- Stand-alone and multi-user design applications
- Macros
- Custom start-up procedures
- Switchboards
- Work groups and security

Who should attend

This course is designed for users who seek a thorough knowledge of Access application development.

Course Objectives

Upon completion of this course you will be able to:

- Apply tips, tricks and shortcuts in application development
- Create advanced controls and objects
- Develop switchboards and establish custom start-up procedures
- Run, test and debug applications
- Establish workgroups and security processes as well as repair and maintain databases

Prerequisite: Microsoft Access 2003: Intermediate (DBAS8115T), or in-depth knowledge of and experience working with MS Access.

3 Days | 1.8 CEU | Tuition \$775

Schedule:

August 29-31, 2006 Washington, DC
January 16-18, 2007 Washington, DC
February 14-16, 2007 Washington, DC
April 10-12, 2007 Washington, DC
July 24-26, 2007 Washington, DC
August 28-30, 2007 Washington, DC

Graduate School, USDA online courses are instructor-led and available on the Blackboard platform. Once you register for an online course the Graduate School will e-mail you your password and the information you need to access the course. Instructors design the 8-week and 3-week courses. The same instructors will assign and evaluate projects, providing feedback to the students regarding their progress. Instruction is enhanced through interactivity and through collaboration via discussion board and e-mail. Instructors are available via e-mail to answer questions.

Microsoft Access 2003 (Introduction through Advanced) (Online)

DBAS9715T

Microsoft Access is a relational database management system and development environment used to organize, access and share information on a desktop computer or in a computer network. This online, instructor-led course contains three modules. Module I covers basic database management concepts such as identifying database components, creating database tables and managing those tables through the use of queries and filters. Module II focuses on multiple database relationships, advanced queries and filters, forms, reports, charts, table joins and input masks. Module III covers advanced controls such as the Performance Analyzer, combo boxes and dialog boxes, macro development, custom switchboards, the database splitter and the linked table manager.

What you will learn

- Database components and basic relational database concepts
- Importing data into tables
- Entity integrity and primary keys
- Queries and filters
- Advanced reports, forms, subforms, queries and table joins
- Input masks to maintain data integrity
- Data access pages
- Importing and exporting data over the Web
- XML documents
- Stand-alone and multi-user design applications
- Macros
- Switchboards and security options

Who should attend

This course is for users who wish to learn database functions and design.

Course Objectives

Upon completion of this course you will be able to:

- Perform database record updates: adding, editing and deleting within a database table
- Set field properties and utilize filters and comparison operators in order to select records from existing databases
- Present formatted printouts incorporating different fonts and attributes, headers and footers, and summarized data utilizing Auto Report and Report Wizard
- Create lookup fields to add data to databases
- Produce subforms to display data from tables or queries that have a one-to-many relationship
- Produce queries using joined tables
- Save forms and reports as data access pages so that intranet/Internet access can be achieved

- Compose Extensible Markup Language (XML) documents for importing and exporting data on the Web
- Create macros and use advanced controls and objects
- Establish workgroups and security processes as well as repair and maintain databases

8 Weeks | 5.0 CEU | Tuition \$995 plus course materials

Schedule:

October 10 – December 5, 2006
March 12 – May 4, 2007
July 9 – August 31, 2007

Microsoft Access 2003 (Online) is also available by module.

Microsoft Access 2003: Introduction (Online)

DBAS7815T

3 Weeks | 1.8 CEU | Tuition \$495 plus course materials

Schedule:

October 16 – November 3, 2006
February 5-23, 2007
July 16 – August 3, 2007

Microsoft Access 2003: Intermediate (Online)

DBAS8815T

3 Weeks | 1.8 CEU | Tuition \$495 plus course materials

Schedule:

November 13 – December 1, 2006
March 5-23, 2007
August 13-31, 2007

Microsoft Access 2003: Advanced (Online)

DBAS9815T

3 Weeks | 1.8 CEU | Tuition \$495 plus course materials

Schedule:

January 8-30, 2007
April 16 – May 4, 2007
September 10-28, 2007

ENHANCING DATABASE PERFORMANCE

Systems Analysis and Design: An Introduction

SOFT7713T

This five-day course emphasizes the tasks, activities and end results of a software system engineering effort and the various methodologies and techniques that can be utilized in software engineering effort. Participants will examine a number of software systems, such as information, Web-based or data warehouse systems, and activities in the SLCP (software life-cycle process), including variations of requirements analysis, systems design and systems implementation. Additional topics include standards, project management processes, quality assurance, change control and configuration management of computer systems.

What you will learn

- Information systems concepts
- File and database concepts
- Activities and deliverables in the SLCP
- Techniques used in selected system development methodologies
- Capability maturity model
- Dynamics of the team approach in developing systems
- Quality assurance and assessment approaches such as ISO 9000 and SEI

Who should attend

This course is designed for computer systems analysts, end users, programmers, managers, quality and database analysts, database designers and other individuals who are interested in understanding and applying software engineering principles for systems analysis and design.

Course Objectives

Upon completion of this course you will be able to:

- Identify, select, initiate and plan within the SLCP
- Articulate the range of activities involved in determining system requirements
- Recognize and apply development methodologies such as structured analysis and design and object-oriented methods using the UML
- Perform modeling activities including logic, process and data
- Discuss the design process and construct forms, interfaces, dialogues and reports
- Evaluate, select, and use tools for development such as CASE
- Perform data gathering techniques such as interviews, questionnaires, observations and research

Prerequisite: Basic familiarity with computer systems and software.

5 Days | 3.0 CEU | Tuition \$1,095

Schedule:

January 29 – February 2, 2007

..... Washington, DC

June 25-29, 2007 Washington, DC

Visual Basic, Version 6.0: Introduction

COMP7963T

This course provides a detailed, hands-on introduction to Microsoft Visual Basic Professional Edition, Version 6.0. Participants learn an object-oriented, event-driven language for performing complex programming tasks exploiting the Microsoft Windows environment. Emphasis is placed on developing language skills and proper programming techniques within a group laboratory setting. Project tasks are geared toward designing Graphical User Interfaces (GUI) and coding of interactive Windows applications.

What you will learn

- Programming concepts using a task-driven rather than a command-driven approach
- Visual Basic project development using a variety of controls, windows and coding sequences
- Creation of Graphical User Interfaces with graphics, multiple fonts and colors
- The uses of variables, constants and selection structures
- The uses of dialog boxes and error trapping with an application

Who should attend

This course is intended for individuals who have both some coding (using any programming language) and Microsoft Windows experience.

Course Objectives

Upon completion of this course you will be able to:

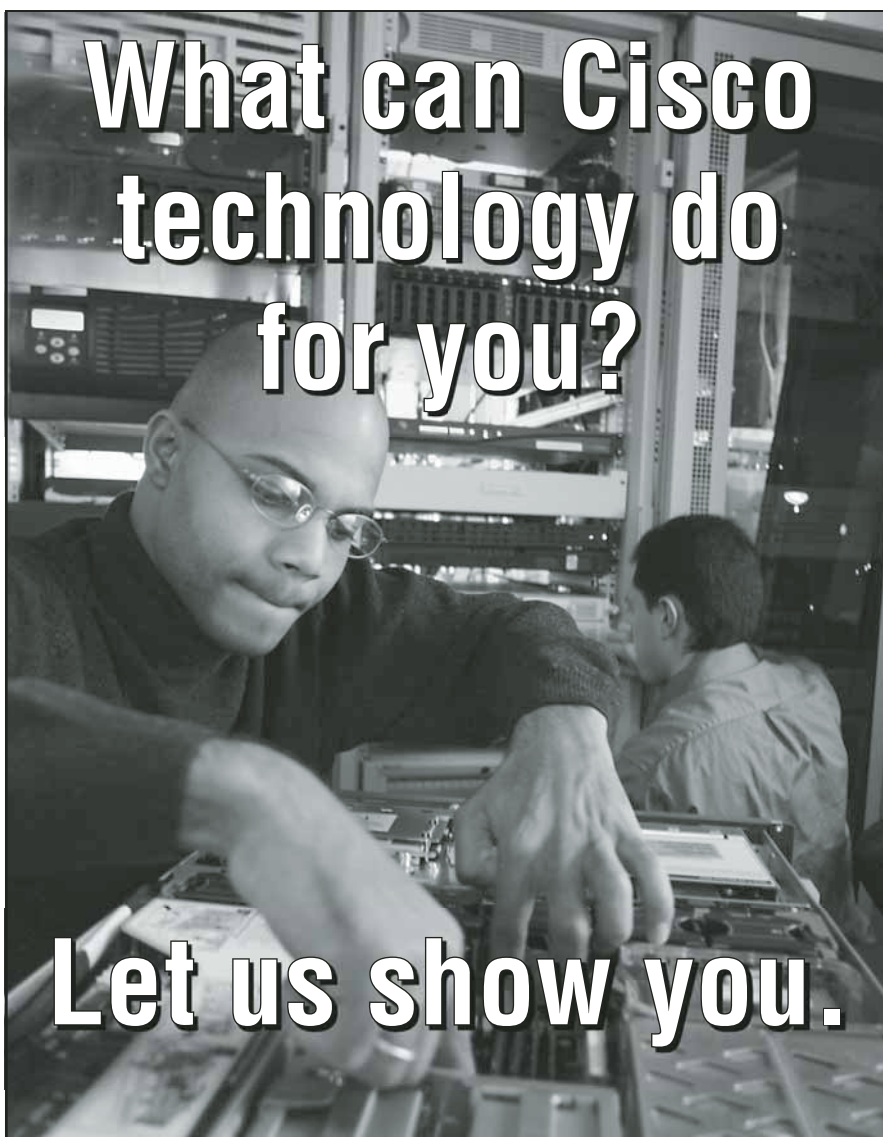
- Navigate the Visual Basic development system to create programs
- Apply the Menu Bar, Toolbar, Toolbox, Project Window, Code Window and Properties Window in the program development process
- Utilize Forms, Controls, Properties and Code Modules within the structure of a Graphical User Interface
- Create a project with customized settings for the Controls used
- Execute and debug an application using the data monitoring and procedure-stepping facilities in Visual Basic

Prerequisites: Some experience in coding using any programming language, and familiarity with Microsoft Windows.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

August 29-31, 2006 Washington, DC
February 27 – March 1, 2007 Washington, DC
August 28-30, 2007 Washington, DC



The widely respected Cisco Career Certifications bring valuable, measurable rewards to network professionals, their managers and the organizations that employ them.

We offer two levels of certification and three paths:

	General Certifications	
Certification Paths	Associate	Professional
Routing and Switching	CCNA®	CCNP®
Network Security	CCNA	CCSP™
Voice	CCNA	CCVP™

As a sponsored organization of Tech 2000, Inc., the Graduate School, USDA is a Cisco Authorized Training Center. We employ Certified Cisco Systems Instructors and all participants receive exam vouchers upon completion of training. We also accept Cisco Learning Credits (CLC).

www.grad.usda.gov/cisco

ORACLE

Oracle: Introduction

CMAN7710T

This five-day workshop presents a basic introduction to the Oracle10g relational database management system (RDBMS). SQL commands and the SQL*Plus software to generate report output are covered. Participants learn about the creation and maintenance of database objects such as tables, views and sequences. The development of SQL*Plus scripts, basic PL/SQL programs and simple forms and reports with Developer10g are also an integral part of the coursework.

What you will learn

- Oracle10g and Developer10g application packages as they relate to database design and creation
- Elementary database modifications relating to adding, changing and deleting information
- Basic tasks in the selection and reporting of data within a database
- Basic tasks in using Oracle Developer 10g form and report tools

Who should attend

This workshop is designed for application developers, database analysts and database administrators who will be working in an Oracle environment.

Course Objectives

Upon completion of this course you will be able to:

- Understand Oracle products and their relationships
- Understand basic SQL*Plus, SQL and PL/SQL commands and differences
- Compose scripts, insert data in tables, create transactions and commit new data
- Discuss the capabilities of PL/SQL and execute a PL/SQL program under iSQL*Plus
- Use Forms Builder along with Data Block Wizard and Layout Wizard for a simple form
- Produce reports utilizing Report Wizard and report templates

Prerequisite: Introduction to Database and Database Design (SOFT7004T).

5 Days | 3.0 CEU | Tuition \$1,575

Schedule:

July 10-14, 2006 Washington, DC
 October 2-6, 2006 Washington, DC
 December 4-8, 2006 Washington, DC
 March 19-23, 2007 Washington, DC
 July 9-13, 2007 Washington, DC

SQL (Oracle 10g): Introduction

CMAN7800T

This five-day course provides instruction in using Oracle SQL and SQL*Plus commands for database development. Techniques to develop complex queries, subqueries and joins for sorting, restricting, merging, updating and deleting data are presented. The course also covers the use of row and group functions, control of user access, script utilization and report creation with SQL*Plus.

What you will learn

- Complex queries and subqueries with Oracle commands
- Sorting and restricting access to data
- Select, insert, merge and update data
- Complex joins
- Oracle scripts
- Output reporting using iSQL*Plus commands
- Single row and group functions

Who should attend

Managers, systems analysts or programmers who want to learn SQL for systems implementation.

Course Objectives

Upon completion of this course you will be able to:

- Identify and utilize the key components of SELECT statements
- Apply the techniques of restricting rows, sorting data and the use of operators in complex searches
- Create and manage tables and other database objects
- Utilize various constraints to support business rules
- Perform data manipulation
- Apply single row and group functions

Prerequisite: Oracle: Introduction (CMAN7710T).

5 Days | 3.0 CEU | Tuition \$1,575

Schedule:

October 16-20, 2006 Washington, DC
January 29 – February 2, 2007

. Washington, DC
April 30 – May 4, 2007 Washington, DC

Oracle 10g Database Administration I: Implementation and Administration

CMAN7902T

This five-day course prepares Oracle database administrators (DBAs) to design, create and maintain an Oracle database. Students receive a thorough grounding in Oracle architecture and structure, as well as practical sessions to manage and configure Oracle instances and databases. Other DBA tasks covered include managing redo log files, user privileges and roles, tables and indexes. In addition, participants are exposed to data integrity and security issues. This class prepares individuals for Oracle Exam #1Z0-042.

What you will learn

- Key components of Oracle10g architecture and installation options
- DBA tools and the background processes
- Redo log files, control files and diagnostic files
- Use of SQL in table and index management
- System privileges, object privileges, profiles and roles
- Manual and automated Oracle installation techniques
- Oracle instances and their configuration
- Oracle's Data Dictionary
- Globalization support, parameters and views

Who should attend

This workshop is for database administrators and other interested in the managing of Oracle systems.

Course Objectives

Upon completion of this course you will be able to:

- Apply installation options in the creation of Oracle databases
- Configure and view storage settings
- Manage, maintain and reorganize indexes
- Create and manage users with the granting of privileges
- Apply advanced table management techniques
- Apply manual SQL and automated DBA tools to create and configure databases
- Apply globalization support features

Prerequisite: SQL (Oracle 10g): Introduction (CMAN7800T).

5 Days | 3.0 CEU | Tuition \$1,575

Schedule:

February 5-9, 2007 Washington, DC
May 7-11, 2007 Washington, DC

Oracle 10g Database Administrator Certified Associate (OCA)

CMAN9101T

The Oracle Certification Program begins with the Associate level. At this apprentice level, Oracle Certified Associates have a foundation of knowledge that will allow them to act as a junior team member working with database administrators or application developers. Earning your Oracle Certified Associate credential will give you recognition for your foundation of knowledge using Oracle technologies. This recognition will differentiate you from those without any credentials and can help build your career by obtaining access to entry-level opportunities.

To become an Oracle Certified Associate, you must pass the exam required for the Oracle Certified Associate level. To earn the Oracle10g Database Administrator Certified Associate credential, you must take the following course and pass an exam to obtain your Oracle10g DBA OCA credential:

- Oracle10g Database Administration I: Implementation and Administration (CMAN7902T).

What you will learn

- Key components of Oracle10g architecture and installation options
- DBA tools and the background processes
- Redo log files, control files and diagnostic files
- Use of SQL in table and index management
- System privileges, object privileges, profiles and roles
- Manual and automated Oracle installation techniques
- Oracle instances and their configuration
- Oracle's Data Dictionary
- Globalization support, parameters and views

Who should attend

This workshop is for database administrators and other interested in the managing of Oracle systems.

Course Objectives

Upon completion of this course you will be able to:

- Apply installation options in the creation of Oracle databases
- Configure and view storage settings
- Manage, maintain and reorganize indexes
- Create and manage users with the granting of privileges
- Apply advanced table management techniques
- Apply manual SQL and automated DBA tools to create and configure databases
- Apply globalization support features

5 Days | 3.0 CEU | Tuition \$1,575

Schedule:

February 5-9, 2007 Washington, DC
May 7-11, 2007 Washington, DC

DESKTOP PUBLISHING

Desktop/Electronic Publishing: Introduction

DTOP7978T

This course teaches the latest trends, techniques and terminology in desktop publishing. Hardware and software requirement selection criteria, novice and professional layout programs, and elements of design, layout and typography are among the topics covered. Step-by-step, instructor-led overviews of the most utilized applications are accompanied by hands-on exercises.

What you will learn

- An overview of and orientation to desktop publishing
- Connectivity with word processing
- Popular layout and design software
- The choices in hardware and software
- The placement of graphic images into documents

Who should attend

Individuals who wish to explore trends and available software applications in desktop publishing will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Apply the four basic principles of design: contrast, repetition, alignment and proximity
- Prepare and combine more than one typeface by understanding the dynamics of type relationships
- Compose layout of type using categories, thick/thin transitions and serifs
- Devise contrasts of types through recognition of size, weight, form, direction and color
- Understand and apply tips and tricks for creating business cards, letterheads, flyers, newsletters and brochures

Prerequisite: Knowledge of Microsoft Windows. Keyboarding and word processing skills are recommended.

2 Days | 1.2 CEU | Tuition \$725

Schedule:

October 4-5, 2006 Washington, DC
March 28-29, 2007 Washington, DC
June 27-28, 2007 Washington, DC

Look what you can find at

www.grad.usda.gov

- Online course registration
- Our latest course offerings
- The ability to search for courses by city or date
- A place to sign up to receive e-mail announcements
and the list goes on...

Adobe Acrobat: Introduction

DTOP7913T

This two-day, in-depth course focuses on understanding and effectively applying the many powerful features and functions of the Acrobat application. Participants will practice creating, storing, accessing and distributing simple and visually rich documents, forms, diagrams, maps, photographs and multimedia presentations across the Internet and enterprisewide intranets. Course content is applicable for all computer platforms (PC, Mac and UNIX).

What you will learn

- Basic features and functions of Acrobat
- How to create a PDF from Microsoft applications and desktop publishing packages
- User features for navigating and reading PDF documents online
- Work area tools and HTML links
- Using the correct job options setting for press and for the Web
- Use of Acrobat as part of a review cycle

Who should attend

Graphic designers, editors, communications professionals, IT professionals and those wishing to have a greater understanding of the tool for universal document exchange will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Create PDF documents using the correct settings
- Convert documents created in Microsoft Office, PageMaker, QuarkXPress and InDesign to PDF
- Create PDFs from Web pages.
- Optimize documents
- Export text and images for use in other applications

Prerequisites: Knowledge of Microsoft Windows and some experience with word processing.

2 Days | 1.2 CEU | Tuition \$695

Schedule:

September 5-6, 2006 Washington, DC
November 8-9, 2006 Washington, DC
February 6-7, 2007 Washington, DC
May 31 – June 1, 2007 Washington, DC
September 4-5, 2007 Washington, DC

Adobe Illustrator: Introduction

DTOP7901T

Learn to use the Adobe Illustrator software application to feature useful techniques, such as document viewing, measure and constraint, for producing camera-ready graphics. In this two-day course, students receive hands-on guidance in the software's fundamentals as well as advanced techniques, tips and features for creating professional-quality print, multimedia and online graphics.

What you will learn

- The Illustrator environment under Microsoft Windows
- Drawing tools and editing paths
- Painting attributes and color usages
- The concept of layers
- Working with type
- Creating type outlines

Who should attend

Professionals responsible for producing and designing publications and those individuals with an interest in the graphics environment will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Create and apply a basic blend, symbol and clipping mask
- Utilize the selection tool and direct selection tool in order to change colors, size, effect or attributes.
- Draw with the pen tool to create and build curves
- Change the fill and stroke with colors
- Transform objects and work with type, including outlines and masks
- Work with order of objects and apply appearance attributes, styles and effect

Prerequisites: Knowledge of Microsoft Windows and word processing.

2 Days | 1.2 CEU | Tuition \$695

Schedule:

July 10-11, 2006 Washington, DC
January 16-17, 2007 Washington, DC
July 9-10, 2007 Washington, DC

Adobe InDesign

DTOP7988T

InDesign is a powerful page layout application that offers many features designed to simplify complicated design tasks. Topics in this course including creating master pages, applying paragraph and character styles and laying out text and graphics in frames. The course covers how to flow text across pages for reports and newsletters and spell-checking documents. Other topics include applying color to text for maximum effectiveness and learning to create and edit gradients. Adobe InDesign supports native Photoshop and Illustrator files, so images will not need to be converted to another format.

What you will learn

- Extensive applications of typography to enhance design
- Effective use of frames to ensure flexibility and control over images
- Tools to ensure a consistent page layout throughout the document
- The full range of color applications including process and spot color
- Manipulation of graphic images imported from Photoshop, Illustrator and other programs

Who should attend

Desktop publishers who want to use a cutting-edge desktop publishing program to create flyers, reports and brochures.

Course Objectives

Upon completion of this course you will be able to:

- Create and save publications
- Place text and graphics into publications
- Format text using styles
- Resize, crop and rotate pictures
- Create colors and learn how to use them appropriately in professional printing
- Set up a master page for headers, footers and page numbering

Prerequisites: Knowledge of Microsoft Windows and word processing.

3 Days | 1.8 CEU | Tuition \$825

Schedule:

July 5-7, 2006 Washington, DC
October 10-12, 2006 Washington, DC
January 2-4, 2007 Washington, DC
April 16-18, 2007 Washington, DC
June 12-14, 2007 Washington, DC

Adobe Photoshop: Introduction

DTOP7769T

This three-day basic course introduces students to the powerful, versatile photo manipulation features of Adobe Photoshop. The use of painting and photo editing tools and the capabilities of selections and palettes are covered. Through a series of hands-on projects, participants learn to use features to select, make adjustments and correct photos. The scanning of photos and the use of a digital camera are integral to this course.

What you will learn

- Use of painting and editing tools: paintbrush and eraser
- How to work with selections
- Use of the clone stamp, healing brush and patch tools
- Use of the quick mask tool

Who should attend

This course is designed for graphic designers, editors, communications professionals and those who wish to produce sophisticated graphics for the Web and for print.

Course Objectives

Upon completion of this course you will be able to:

- Perform basic photo corrections such as color adjustment, cropping and tonal range
- Work with selections utilizing the Magic Wand, marquee and lasso tools
- Create and work with layers
- Create and edit quick masks
- Retouch and repair using the clone stamp, healing brush and patch tools
- Create a gradient fill and format type
- Apply Filters

Prerequisite: Knowledge of Microsoft Windows.

3 Days | 1.8 CEU | Tuition \$825

Schedule:

August 14-16, 2006 Washington, DC
 October 30 – November 1, 2006
 Washington, DC
 January 3-5, 2007. Washington, DC
 March 19-21, 2007 Washington, DC
 June 4-6, 2007. Washington, DC
 August 13-15, 2007 Washington, DC

Adobe Photoshop: Intermediate

DTOP8869T

In this two-day course, intermediate techniques within the Photoshop application will be demonstrated and applied. Attention will focus on the Pen tool, on vector shapes and paths, and on advanced shape layering processes. Participants learn how to automate commands and prepare images for two-color printing.

What you will learn

- Use of the Pen tool
- Use of Vector graphic features
- Use of Advanced layering
- Use of Grayscale conversions and duotones
- Spot channels for Pantone colors and fixing red eye
- How to automate tasks under the application

Who should attend

This course is designed for individuals who have a basic background in Photoshop and wish to learn more advanced techniques.

Course Objectives

Upon completion of this course you will be able to:

- Create straight and curved paths and convert a path to a clipping path to simulate transparency for use in desktop publishing applications
- Convert paths for selections so they can be used repetitively
- Utilize vector graphics in the creation of pictures and logos
- Manage layers through the use of layer sets
- Create actions to automate multi-step tasks
- Use channels for grayscale and set up for spot color

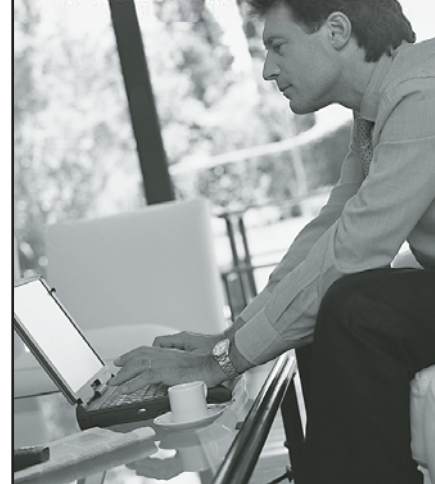
Prerequisite: Adobe Photoshop: Introduction (DTOP7769T).

2 Days | 1.2 CEU | Tuition \$725

Schedule:

August 17-18, 2006 Washington, DC
 March 22-23, 2007 Washington, DC
 August 16-17, 2007 Washington, DC

No time for a classroom?



The Graduate School is responding to the changing needs of today's students with more distance education courses.

Our most popular offerings are now available online: All courses are instructor-led and use state-of-the-art delivery methods including Blackboard and Centra software. Highly experienced faculty members design the content to exceed your expectations and position you for greater career mobility.

Courses offered include:

- Microsoft Office applications
- A+, Network+ and Security+
- Information assurance courses from the Capitol College Master of Science in Network Security

Because of our continually evolving distance education program, we anticipate a broad range of new offerings throughout the year. Please check our Web site frequently for courses that will meet your continuing education needs:

www.grad.usda.gov/onlineit

ENTERPRISE ARCHITECTURE

Enterprise architecture courses are now available for on-site delivery!

Enterprise architecture (EA) is a blueprint for modernization. Our new EA curriculum is designed to equip both current and prospective enterprise architects, as well as interested technologists and line of business specialists, with the requisite knowledge and skills to implement a viable, cost effective enterprise architecture within their organizations. Participants will gain the requisite knowledge and skills to serve as effective "change agents" for enhancing intra- and inter-agency communications, streamlining business processes, eliminating duplication of services and facilitating data sharing for effective decision making across the enterprise and government at large.

Specific requirements for achieving a score of "green" relative to OMB's specified capability areas for "completion, use and results," as outlined in the *Federal Enterprise Architecture Program EA Assessment Framework 2.0*, are emphasized throughout the program.

To inquire about offering enterprise architecture or any other courses at your agency, please call our IT training consultants at (202) 314-3600 or e-mail appliedtech@grad.usda.gov.

Introduction to Enterprise Architecture

NEW

ENTR7000T

This course provides an introduction to and overview of enterprise architecture. Architecture frameworks and approaches will be reviewed, in conjunction with legislative and regulatory requirements, including those published by OMB's Federal Enterprise Architecture Program Management Office (FEA-PMO).

What You Will Learn

- What "enterprise architecture" is all about
- Why "enterprise architecture" is important
- EA roles and responsibilities within a federal agency
- The importance of effectively communicating an "enterprise architecture" to agency executives, management and general personnel for organizational buy-in

Who Should Attend

All those interested in learning about enterprise architecture, including aspiring and existing enterprise architects; CPIC coordinators; program/project managers; and IT, program, planning and budget specialists.

Course Objectives

Upon completion of this course you will be able to:

- Explain the relationship of EA to strategic planning, capital planning and investment control (CPIC), IT security, configuration management and system development life cycles (SDLC)
- Understand the requirements for "Getting to Green" vis-à-vis the *Federal Enterprise Architecture Program EA Assessment Framework 2.0*
- Implement an agency enterprise architecture, including an "as-is" and "to-be" architecture and a transition plan for migrating from existing to targeted states
- Comprehend the taxonomy and use of applying different architectural frameworks and approaches
- Apply underlying principles governing the application of federal enterprise architecture reference models

3 Days | 1.8 CEU | Tuition \$1,095

Schedule

July 18-20, 2006 Washington, DC
October 31 – November 2, 2006
. Washington, DC
March 21-23, 2007 Washington, DC
June 11-13, 2007 Washington, DC

Implementing an Enterprise Architecture

NEW

ENTR7001T

In this course, participants will learn how to provide business value to their agency; meet associated needs; and how to address *Federal Enterprise Architecture Program EA Assessment Framework 2.0* requirements for “getting to green” relative to “completion, use and results.”

What You Will Learn:

- The importance of an EA tool in the development and maintenance of an agency EA
- Considerations in selecting a particular tool and an approach for modeling your agency's EA
- How to develop an architecture structured to your agency's mission, organization, and culture
- Techniques and approaches for documenting your agency's “as-is” architecture
- Techniques and approaches for developing your agency's “to-be” architecture
- Assessment techniques used to identify gaps between your baseline and targeted architecture
- How to develop a transition and sequencing plan for migrating from the current to the “to-be” state
- How to link your agency's “as-is” and “to-be” architectures to FEA reference models
- To effectively leverage CPIC to “achieve results”
- The role of standards development and configuration management in EA implementations
- Techniques for developing business-oriented, data-oriented, and service-oriented architectural models
- Cases that analyze where service-oriented architectures can be effectively leveraged to facilitate data sharing and interoperability between systems

Who Should Attend

Anyone interested in learning about enterprise architecture and who wants to explore an approach to enterprise architecture which directly addresses the business of their organization and facilitates organizational participation in the development of the same. This audience would include: aspiring and existing enterprise, solutions and technical architects; CPIC coordinators; program/project managers; and IT, program, planning and budget specialists.

Course Objectives:

Upon completion of this course you will be able to:

- Develop an EA governance process that viably addresses your agency's mission and business requirements, and results in the “completion” and “use” of your EA with documented “results” to improve the effectiveness of your agency
- Choose an EA approach that best addresses your agency's desired strategic outcome
- Select and implement an architectural framework and tool for documenting your agency's EA
- Effectively work with the business in developing an agency's targeted enterprise architecture, and associated transition and sequencing plan
- Create and implement an EA strategy that effectively addresses *Federal Enterprise Architecture Program EA Assessment Framework 2.0* requirements
- Develop a “to-be” architecture by: (1) assessing the effectiveness your agency's “as-is” architecture vis-à-vis its mission and strategic objectives, (2) identifying duplication in services and the collection of data, (3) inventorying best practices, and (4) surveying emerging technologies and markets
- Reconcile a sub-entity's EA to an agency-level and/or federal EA
- Leverage techniques to facilitate effective communication and use of your EA

Prerequisite: Introduction to Enterprise Architecture (ENTR7000T).

3 days | 1.8 CEU | Tuition \$1,095

Schedule:

August 23-25, 2006 Washington, DC
November 28-30, 2006 Washington, DC
February 12-14, 2007 Washington, DC
May 2-4, 2007 Washington, DC

EA Organization and Governance

NEW

ENTR8000T

In this course, EA governance will be presented as a powerful tool for modernization and change management and discussed in the context of the organization. EA governance provides the umbrella framework under which business process reviews, standards development, organizational modernization, capital planning and investment control (CPIC), and configuration and change management take place. EA governance guides, facilitates, sustains and institutionalizes these processes within continuously viable, agile organizations.

What You Will Learn

- Techniques for forming, socializing and harmonizing EA governance bodies and teams within the context of your organization
- Requirements to manage the business of your organization within the context of its EA and “to-be” architecture goals

Who Should Attend

Anyone interested in learning about enterprise architecture and who wants to explore an approach to enterprise architecture which directly addresses the business of their organization and facilitates organizational participation in the development of the same. This audience would include: aspiring and existing enterprise, solutions and technical architects; CPIC coordinators; program/project managers; and IT, program, planning and budget specialists.

Course Objectives

Upon completion of this course you will be able to:

- Pattern your EA governance structure to best address the business orientation and culture of your organization
- Establish EA governance policies and procedures which address all *Federal Enterprise Architecture Program EA Assessment Framework 2.0* requirements for the same

Prerequisites: Implementing an Enterprise Architecture (ENTR7001T).

2 days | 1.2 CEU | Tuition \$875

Schedule:

September 19-20, 2006 Washington, DC
January 25-26, 2007 Washington, DC
June 11-12, 2007 Washington, DC

Service-Oriented Architectures – Components and Services

NEW

ENTR8001T

This course provides a general overview of the application and use of service-oriented architectures (SOA) in the context of EA. The identification, scope and reuse of services (and components) will be addressed not only in this context but also relative to business processes and data.

What You Will Learn

- The benefits of implementing a service-oriented architecture; i.e., data sharing, system interoperability, and reductions in both direct and indirect costs
- Background, history, and definition of service-oriented architectures and how they can be effectively applied in your enterprise
- Approaches for developing “as-is” and “to-be” service architectures, and associated transition plans for migrating from the current to targeted state
- How best to scope services for re-use not only across the enterprise but across agencies as a “service provider”
- How NARA has defined record “service” requirements for potential incorporation in vendor software applications
- The rationale behind “Core.gov” and resulting benefits of its use across government

Who Should Attend

Enterprise, solutions and technical architects, and program/project managers with an understanding of enterprise architecture and associated FEA requirements.

Course Objectives

Upon completion of this course you will be able to:

- Identify and scope services (and components) for reuse across the enterprise
- Effectively leverage the FEA Service Component Reference Model (SRM) to develop a targeted architecture within your organization
- Link services to business processes appropriately
- Evaluate the feasibility of introducing and implementing a service-oriented architecture into your environment
- Understand how UML, IDEFO and BPMN can be used to identify services and associated requirements

Prerequisite: Implementing an Enterprise Architecture (ENTR7001T).

2 days | 1.2 CEU | Tuition: \$875

Schedule:

October 4-5, 2006 Washington, DC
February 27-28, 2007 Washington, DC
July 9-10, 2007 Washington, DC

Performance Reference Models and Linkage to Strategic Plans

NEW

ENTR9000T

This course will address FEA Performance Reference Model (PRM) requirements vis-à-vis mission and business results, customer results, processes and technology. PRM linkages to agency strategic plans and performance objectives will be addressed, as will differences between outcomes versus outputs.

What You Will Learn:

- Differences between outcomes versus outputs, and associated metrics
- Examples of common objective quantitative measures used to monitor performance
- Approaches to link FEA PRM indicators/metrics to agency strategic performance plans, business processes, systems and assets for portfolio management
- Approaches for identifying key business process data inputs and outputs for performance metrics
- Strategies to mine data from existing agency databases and link to your agency's EA model to provide for executive dashboarding

Who Should Attend:

Enterprise, solutions and technical architects; strategic planners and budget specialists; IS and technical managers; and database managers and administrators having an understanding of enterprise architecture and associated FEA requirements.

Course Objectives

Upon completion of this course you will be able to:

- Identify objective quantitative (and qualitative) FEA PRM performance metrics to address mission and business results, customer results, processes and technology
- Link PRM performance metrics to agency strategic plans and OMB Exhibit 300 business cases to monitor project implementation and conduct post implementation reviews
- Link performance metrics to business processes and portfolio assets for trend analysis and planning

Prerequisites: Implementing an Enterprise Architecture (ENTR7001T), Enterprise Architecture and Governance (ENTR8000T) and Service-Oriented Architectures – Components and Services (ENTR8001T).

2 days | 1.2 CEU | Tuition: \$875

Schedule:

November 16-17, 2006 Washington, DC
April 10-11, 2007 Washington, DC

The Key to Managing IT Services

Information Technology Infrastructure Library (ITIL®)

ITIL is the most widely accepted approach to IT service management in the world. It provides a cohesive set of best practices drawn from the public and private sectors internationally and is supported by a comprehensive qualifications scheme, accredited training organizations, and implementation and assessment tools. The best practice processes promoted in ITIL support are supported by the British Standards Institution's Standard for IT Service Management (BS15000).

For more information, visit:
<http://www.itil.co.uk>

Technical Architectures

NEW

ENTR8002T

This course addresses FEA Technical Reference Model (TRM) requirements and associated relationships with the Open Systems Interconnection (OSI) Reference Model. The development of technical standards and specifications, to include security standards, is addressed, and configuration management is discussed in the context of organizational compliance with selected standards.

What You Will Learn

- The benefits to be derived from employing a technical reference model in your agency
- How to inventory IT assets, both hardware and software, across the enterprise
- The taxonomy of the FEA TRM
- Approaches for developing "As-Is" and "To-Be" technical architectures, and associated transition plans for migrating from the current to targeted technical state
- The concept of security trust profiles and how they can best be leveraged within your organization
- Considerations for effectively integrating security standards throughout all layers of your architecture in concert with guidance set forth in the FEA-PMO FEA Security and Privacy Profile

Who Should Attend

Enterprise, solutions and technical architects, and IS and technical managers having an understanding of enterprise architecture and associated FEA requirements.

Course Objectives

Upon completion of this course you will be able to:

- Create enterprisewide technical standards consistent with requirements specified in the FEA TRM
- Develop associated security standards in concert with requirements specified in OMB Circular A-130
- Link technical standards and specifications to identified agency FEA SRM service components
- Link technical standards and specifications to agency IT portfolios and assets
- Incorporate standards requirements in procurement clauses to better ensure consistent configuration management across the enterprise
- Monitor agency compliance with specified technical standards via configuration management
- Work closely with IT security and program components in developing an enterprisewide security trust model within which security standards are specified for implementation within specified boundaries

Prerequisites: Implementing an Enterprise Architecture (ENTR7001T), Enterprise Architecture and Governance (ENTR8000T), and Service-Oriented Architectures – Components and Services (ENTR8001T).

2 days | 1.2 CEU | Tuition \$875

Schedule:

October 17-18, 2006 Washington, DC
February 21-22, 2007 Washington, DC
June 27-28, 2007 Washington, DC

Data Architectures

NEW

ENTR8003T

This course explores the concept and value of metadata registries using the FEA Data Reference Model (DRM) and ISO/IEC 11179, and how best to implement effective data sharing across and among enterprises for performance monitoring and real-time decision making.

What You Will Learn

- The structure of data vis-à-vis ISO/IEC 11179, the Dublin Core Metadata Initiative (DCMI), Version 1.1, and the FEA DRM
- Approaches for developing "As-Is" and "To-Be" data architectures and associated transition plans for migrating from the current to targeted state
- Concepts of knowledge asset management and decision making and how these concepts can be leveraged vis-à-vis data
- How to identify key data elements for collecting metrics on agency performance

Who Should Attend

Enterprise, solutions and technical architects; IS and technical managers; and database managers and administrators having an understanding of enterprise architecture and associated FEA requirements.

Course Objectives

Upon completion of this course you will be able to:

- Identify critical agency data objects and key attributes using business process modeling notation (BPMN) and/or IDEF0
- Categorize key agency data in accordance with the FEA DRM
- Address requirements for securing and protecting classified and/or sensitive but unclassified (SBU) security and privacy related data

Prerequisites: Implementing an Enterprise Architecture (ENTR7001T), Enterprise Architecture and Governance (ENTR8000T) and Service-Oriented Architectures – Components and Services (ENTR8001T).

2 days | 1.2 CEU | Tuition: \$875

Schedule:

December 6-7, 2006 Washington, DC
July 23-24, 2007 Washington, DC

Like what you see?
There's more where
this came from.

Call us at (888) 744-GRAD for additional catalogs, or visit
www.grad.usda.gov/request.

EA and Business Modeling – Concepts and Practices

NEW

ENTR9001T

In this course, participants will learn how to capture EA content employing different modeling notations. Three primary process/object modeling notations will be explored along with the pros and cons associated with each. EA modeling tools will additionally be explored and assessed relative to each of these modeling notations. The importance of involving business leader participation in visualization and development of an agency's EA model will be highlighted throughout this course.

What You Will Learn:

- The concepts of Unified Modeling Language (UML), Integration Definition for Function Modeling (IDEFO) and Business Process Modeling Notation (BPMN) and the circumstances under which each is best employed
- Circumstances under which these modeling notations can best be employed to capture and reflect your agency's EA content
- The importance of "purpose-based" modeling and the criticality of business leader involvement in the development of the same
- Approaches for leveraging EA models for knowledge management and executive dash boarding

Who Should Attend:

Enterprise, solutions and technical architects; business partners, and technologists having an understanding of enterprise architecture and associated FEA requirements.

Course Objectives:

Upon completion of this course you will be able to:

- Distinguish the differences and circumstances under which UML, IDEFO, and BPMN are best employed
- Employ these modeling techniques to capture and reflect your agency's EA
- Incorporate EA modeling into the development and maintenance of your agency's EA governance process

Prerequisites: Implementing an Enterprise Architecture (ENTR7001T), Enterprise Architecture and Governance (ENTR8000T) and Service-Oriented Architectures – Components and Services (ENTR8001T).

2 days | 1.2 CEU | Tuition: \$875

Schedule:

January 11-12, 2007 Washington, DC
May 8-9, 2007 Washington, DC

Facilitating EA Communication and Buy-In

NEW

ENTR9003T

This course will address strategies for communicating an agency's EA and cultivating the agency's business ownership of the same.

What You Will Learn

- Different strategies for communicating an agency's EA to business participants
- The role of an EA tool in "selling" an agency's EA and engaging the business
- Strategies for eliciting EA participation in the business of the agency

Who Should Attend

Enterprise architects, business partners and technologists with a general understanding of enterprise architecture and associated FEA requirements.

Course Objectives

Upon completion of this course you will be able to:

- Create a common vision of solutions to build consensus among divergent stakeholders
- Evaluate, select and implement the most effective communication strategies to elicit your agency's buy-in of its EA
- Select and develop the most effective representation of your agency's EA for addressing its requirements
- Incorporate change management strategies and techniques into EA transition plans and governance processes
- Develop an EA communications strategy and plan

Prerequisites: Implementing an Enterprise Architecture (ENTR7001T), Enterprise Architecture and Governance (ENTR8000T) and Service-Oriented Architectures – Components and Services (ENTR8001T).

1 day | 0.6 CEU | Tuition: \$495

Schedule:

November 8, 2006 Washington, DC
February 28, 2007 Washington, DC
June 4, 2007 Washington, DC

*Now at the
Graduate School, USDA*



CompTIA® Certification Training

The Graduate School offers CompTIA® Certification training to help you achieve some of the leading industry-wide, vendor-neutral certifications!

CompTIA A+

This training prepares you for certification as an entry-level PC technician. A+ certification provides the perfect entry into an IT career.

CompTIA Network+

The international industry credential that validates the knowledge of network professionals with at least nine months of experience. A+ Certification or equivalent knowledge is a prerequisite.

Learn in our state-of-the-art classrooms or train online with instructor support via Blackboard.

Applied Enterprise Architecture: Affecting Strategic Change

NEW

ENTR9002T

This course is designed to engage participants in an applied, problem-solving group exercise to develop a working enterprise architecture that can be effectively leveraged to support the business of an agency. In addition to developing "as-is" and "to-be" architectures, and associated transition and sequencing plans, participants will develop accompanying EA communications and governance strategies to facilitate the development and maintenance of the EA. Change management issues will be addressed in conjunction with resource realignment strategies during the development of group project.

What You Will Learn:

- How to determine the scope of an architecture
- How to determine the information needed to populate your chosen enterprise architecture framework
- How to select an EA toolset
- How to incorporate EA into agency decision-making processes; (CPIC, configuration management, system development life cycle)
- How to maintain an EA (data collection, refresh, change control)
- How to develop a communications strategy
- How to develop performance metrics
- The role of the architectural compliance process (governance)
- Practices and methods of using architecture as a strategic tool to resolve business problems; i.e., the value of EA
- The role of the architect in leading change and introducing sustainable solutions

Who Should Attend:

Practicing enterprise and solutions architects, business partners and technologists with a general understanding of enterprise architecture and associated FEA requirements.

Course Objectives:

Upon completion of this course you will be able to:

- Create an actionable EA program
- Leverage an EA to demonstrate a return on investment for proposed business solutions
- Understand the role of the architect in leading change and introducing sustainable solutions
- Demonstrate compliance with federal mandates

Prerequisites: Implementing an Enterprise Architecture (ENTR7001T), Enterprise Architecture and Governance (ENTR8000T), and Service-Oriented Architectures – Components and Services (ENTR8001T), and any 3 certificate elective courses.

3 days | 1.8 CEU | Tuition: \$1,095

Schedule:

March 5-7, 2007. Washington, DC
June 6-8, 2007 Washington, DC

Location, Location, Location.



The Graduate School is conveniently located in Capital Gallery at 600 Maryland Avenue S.W. near the L'Enfant Plaza Metro station, 7th Street and Maryland Avenue exit. You can reach us via the Yellow, Green, Orange or Blue lines. Parking is available in the building and in nearby garages.



Certificate of Accomplishment in Enterprise Architecture

ENTR9100T

Enterprise Architecture is a blueprint for modernization. The Certificate of Accomplishment in Enterprise Architecture (EA) is designed to equip both current and prospective enterprise architects, as well as interested technologists and line of business specialists, with the requisite knowledge and skills to implement a viable cost effective enterprise architecture within their organization.

Participants will gain the requisite knowledge and skills to serve as effective "change agents" for enhancing intra- and inter-agency communications, streamlining business processes and eliminating duplication of services, and facilitating data sharing for effective decision making across the enterprise and across government at large. Specific requirements for achieving a score of "Green" relative to OMB's specified capability areas for "Completion, Use and Results" as outlined in the "Federal Enterprise Architecture Program EA Assessment Framework 2.0," are emphasized throughout the program.

Introduction to Enterprise Architecture (ENTR7000T) is designed to provide participants with an overview of enterprise architecture and all current OMB/FEA requirements. While all participants are encouraged to take this class, it is required only for participants with less than one year of hands-on experience in enterprise architecture. Required courses must be taken prior to elective courses, and Implementing an Enterprise Architecture (ENTR7001T) is a prerequisite to all other required courses. The sequence in which remaining elective courses are taken is left to the discretion of the individual. However, participants electing to take Applied Enterprise Architecture: Affecting Strategic Change (ENTR9002T) are encouraged to take this course last. Participants have three years to complete the program.

Prerequisite

(Required if less than one year of experience in the practice of federal enterprise architecture):

Introduction to Enterprise Architecture | ENTR7000T | 1.8 CEU

Required Courses

(Complete 3 courses):

Implementing an Enterprise Architecture | ENTR7001T | 1.8 CEU

Enterprise Architecture Organization and Governance
ENTR8000T | 1.2 CEU

Service-Oriented Architectures (Components and Services)
ENTR8001T | 1.2 CEU

Elective Courses

(Select 4 courses):

Performance Reference Models and Linkage to Strategic Plans
ENTR9000T | 1.2 CEU

Technical Architectures | ENTR8002T | 1.2 CEU

Data Architectures | ENTR8003T | 1.2 CEU

EA and Business Modeling – Concepts and Practices
ENTR9001T | 1.2 CEU

Facilitating EA Communication and Buy-In | ENTR9003T | .6 CEU

Applied Enterprise Architecture: Affecting Strategic Change
ENTR9002T | 1.8 CEU

GEOGRAPHIC INFORMATION SYSTEMS

Introduction to GIS Software: ESRI ArcGIS 9.x

NEW

GIST7000T

A single software platform is used throughout the certificate programs to provide students with a consistent learning experience. This course provides an introduction to the ArcGIS software platform from Environmental Systems Research Institute (ESRI), one of the top GIS software platforms used by commercial as well as government organizations. This course, taught by ESRI Authorized Instructors, consists of two days of standard, hands-on software training followed by a third day of more advanced topics. Students learn to manage spatial and tabular data, create new data, query and analyze both spatial and database information, and compile final products such as maps and reports.

What you will learn

- Basic features of the ArcGIS platform
- Display and query of data in ArcMap
- Creating and editing features in ArcMap
- Working with and managing spatial data in ArcCatalog
- Advanced topics with ArcGIS

Who should attend

Users with limited GIS software experience will benefit from this course. ESRI's ArcGIS software is a required prerequisite for all courses.

Course Objectives

Upon completion of this course you will be able to:

- Be familiar with the principal ArcGIS applications used for managing, displaying and analyzing GIS data
- Understand GIS concepts as implemented by ESRI
- Be able to perform the core GIS functions using ArcGIS
- Have basic GIS project organization and management skills
- Know principal data sites, sources, types and search techniques for finding data for specific projects
- Be able to apply basic interface customizations to ArcGIS
- Have a basic competency with the industry leading GIS analytical software platform

Prerequisite: Successful completion of Introduction to GIS Technologies (GIST7001T), or extended experience with GIS in industry or academia.

3 Days | 1.8 CEU | Tuition \$995

Schedule:

September 12-14, 2006 Washington, DC
December 4-6, 2006 Washington, DC
March 13-15, 2007 Washington, DC
June 12-14, 2007 Washington, DC

It's a

GO!

**Check our Web site
to see confirmed
sessions that are
"Guaranteed to Go."**

Introduction to GIS Technologies

NEW

GIST7001T

This course provides a broad introduction to GIS including the fundamentals of the science, key supporting technologies and prominent organizations in the field. Students are introduced to the components of GIS, different data types and their sources, and the concept of spatial analysis. A series of case studies provide examples of how GIS can be applied in different disciplines. Some hands-on software exercises provide an exposure to basic tools and GIS principles. The role that GIS plays in integration with other information technologies, such as enterprise databases and Internet applications, is also investigated. This is a survey course and provides an overview of the subject matter as a whole. Students with prior GIS knowledge and experience may waive this course in favor of another.

What you will learn

- Overview of geographic information systems
- Cartographic issues in GIS
- Fundamentals of GIS and geotechnologies
- How GIS are applied in different industries
- About GIS-related organizations and standards

Who should attend

Participants who are new to the technology, need an updated understanding of the industry, or those who will be managing GIS professionals.

Course Objectives

Upon completion of this course you will be able to:

- Understand the context of GIS and related technologies
- Know the principal GIS functions and components and how they interact to aid in decision making processes
- Identify the principal data models used to represent data spatially
- Be aware of the diverse ways GIS may be applied to solve problems and inform business processes
- Know the major geospatial initiatives and organizations that are shaping the role of GIS in society
- Get hands-on exposure to spatial data for visualization, query, and analysis
- Explore Web-based tools and Internet sites pertinent to the technology

Prerequisites: Students need to have basic computer skills and web navigation skills to be successful in this course.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

August 15-17, 2006 Washington, DC
November 14-16, 2006 Washington, DC
February 20-22, 2007 Washington, DC
April 10-12, 2007 Washington, DC

Cartographic Issues: Map Projections and Map Design

NEW

GIST8000T

Geographic information systems (GIS) use data that has often been collected or compiled for cartographic purposes. As a result, some critical cartographic issues must be considered when dealing with GIS data and products. You gain a thorough assessment of map projections and coordinate systems and their significance when working with spatial data. You also learn about cartographic design principles to provide the tools to develop meaningful map products that accurately and effectively communicate their information.

What you will learn

- Fundamentals of coordinate systems
- Common coordinate systems in use in the United States
- Dealing with map projections in a GIS
- Thematic mapping
- Advanced map design and management

Who should attend

Anyone using GIS or newly introduced to the technology. Anyone involved in the publication of products from spatial data and analysis will also benefit.

Course Objectives

Upon completion of this course you will be able to:

- Explain the role and importance of coordinate systems and map projections
- Identify common coordinate systems used for the United States and US-developed international datasets
- Integrate data from different coordinate systems into spatially valid datasets
- Identify basic cartographic principles and how they affect geographic features and their presentation
- Explain the process of map design and considerations for effective map communications
- Explain different types of thematic maps and choices in their selection and presentation
- Design and produce cartographically sound maps

Prerequisite: Introduction to GIS Software: ESRI's ArcGIS 9.x course or competency with ESRI's ArcGIS 9.x.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

September 19-21, 2006 Washington, DC
May 15-17, 2007 Washington, DC

GIS Project Development and Process

NEW

GIST8001T

The pursuit of a geographic information system (GIS) analysis process involves a number of specific steps. You learn a structured approach to GIS project development, from conceptualization to final results, with special attention to real-life issues you will face on the job at each stage. You apply the structured approach to complete an individual GIS analysis project.

What you will learn

- Review of GIS as a system
- Project management techniques for GIS
- Conceptualizing GIS projects
- The GIS project model
- Self-directed GIS analysis project

Who should attend

Anyone using GIS software or newly introduced to the technology.

Course Objectives

Upon completion of this course you will be able to:

- Apply basic project management skills for organizing and pursuing a GIS project
- Apply conceptual process of performing a GIS analysis project
- Segment a problem or question in specific GIS procedures and operations
- Perform common operations performed in GIS
- Explain how the data, analysis and presentation aspects of GIS interrelate to produce successful GIS analysis and communication

Prerequisite: Introduction to GIS Software: ESRI's ArcGIS9.x (GIST7000T), or competency with ESRI's ArcGIS9.x.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

November 7-9, 2006 Washington, DC
January 16-18, 2007 Washington, DC
March 27-29, 2007 Washington, DC
June 12-14, 2007 Washington, DC

Spatial Databases and Database Development

NEW

GIST8002T

Geographic information system data is unique in that, unlike traditional data and databases, GIS data includes geographic location information as a key component, requiring special consideration for management and handling of the data. You become familiar with spatial data and issues related to their management, including models and their prominent data types and sources. Topics include data standards, standards organizations, metadata, database concepts, database development and quality control and assurance. The new ESRI Geodatabase format is covered through a series of hands-on exercises.

What you will learn

- Basic database structures and data types
- Principal spatial data models, relationships and topology
- The ESRI Geodatabase
- Data standards and Metadata
- Data conversion

Who should attend

Anyone using GIS or newly introduced to the technology, especially database developers who want to expand their knowledge to include spatial data representation.

Course Objectives

Upon completion of this course you will be able to:

- Identify the basic structure and design process for data maintained in databases
- Identify the prominent spatial data models and how they are stored in databases
- Represent real-world objects and events in databases
- Explain the ESRI Geodatabase and how to construct one
- Identify data standards, metadata content, and their importance
- Explain the process of data conversion and principal issues affecting conversion projects
- Apply quality control and assurance procedures to control error and develop accurate spatial database

Prerequisite: Introduction to GIS Software: ESRI ArcGIS 9.x (GIST7000T), or competency with ESRI's ArcGIS 9.x software.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

December 12-14, 2006 Washington, DC
March 27-29, 2007 Washington, DC
July 17-19, 2007 Washington, DC

Spatial Analysis Using GIS

NEW

GIST8003T

The power of a geographic information system (GIS) lies in its utility for analyzing spatial data. Such analysis can significantly enlighten the decision-making process. You learn about the most prominent forms of spatial analysis in both the Vector and Raster data models, and participate in extensive computer exercises to explore tools and techniques for analyzing spatial data. You also learn about the appropriate use of different analytical techniques, data quality and error considerations when performing analysis in a GIS.

What you will learn

- Introduction to spatial analysis
- Spatial relationships
- Types of spatial analysis
- Converting relationships into GIS operations
- Basic raster analysis and modeling

Who should attend

Anyone using GIS or newly introduced to the technology who wants to advance their use of spatial analysis.

Course Objectives

Upon completion of this course you will be able to:

- Explain the principles of spatial phenomena that permit spatial analysis
- Explain basic statistics and spatial statistics
- Identify the basic categories of spatial analysis and how they apply to spatial data
- Explain the conceptual process for determining appropriate GIS analysis operations
- Convert specific project criteria into GIS analysis steps
- Develop and run geoprocessor models
- Use some basic raster analysis operations including the Spatial Analyst extension to ArcGIS

Prerequisite: Introduction to GIS Software: ESRI ArcGIS 9.x (GIST7000T), or competency with ESRI's ArcGIS 9.x software.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

October 31 – November 2, 2006
. Washington, DC
April 24-26, 2007 Washington, DC

GIS Applications: Environmental and Natural Resource Management

NEW

GIST9000T

GIS have long been recognized as a valuable tool for resource management and environmental analysis. They provide a powerful environment for modeling natural processes and human impacts on them. This course surveys a number of dimensions of environmental analysis from basic inventory efforts to abstract modeling. Key datasets and data sources are identified. Case studies are presented and explored through hands-on exercises to instill a conceptual understanding of human-environment interactions and how they may be investigated in a GIS.

What you will learn

- Environmental analysis
- The natural resource and environmental database
- Remote sensing of environment
- Environmental applications
- Environmental site assessment

Who should attend

This course is for those working in environmental or natural resource positions or those desiring a thorough understanding of how geospatial tools are applied in these industries.

Course Objectives

Upon completion of this course you will be able to:

- Understand the application of GIS to environmental and natural resource issues
- Know core data types and sources for environmental databases
- Know the principles of remote sensing and their value for environmental GIS applications
- Be aware of the broad range of natural and human dimensions of environmental applications of GIS
- Understand the decision support and predictive values of GIS as a tool for considering complex human/nature interactions

Prerequisites: Completion of two GIS core courses.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

June 26-28, 2007 Washington, DC

GIS Applications: Urban Planning and Development NEW

GIST9001T

You learn applications of GIS for local and regional government, and participate in a discussion of topics often dealt with by local governments, including transportation issues, zoning and land use planning, environmental analysis, demographic trending and the use of GIS for smart growth initiatives. You gain experience by working case studies and hands-on exercises to illustrate process and reinforce concepts.

What you will learn

- Introduction to concepts of urban planning
- Economic, social and environmental dimensions of planning
- Enterprise GIS for local government
- Interdisciplinary aspects of GIS
- Case studies in GIS application to urban planning

Who should attend

Anyone working in urban planning and development who needs to apply geospatial tools.

Course Objectives

Upon completion of this course you will be able to:

- Explain the development of planning concepts and their implementation in a GIS
- Identify the principal datasets used in urban and regional planning and their sources
- Perform common planning tasks
- Explain how different development alternatives affect future urban development
- Apply tools for balancing economic, social and environmental consequences of planning alternatives
- Explain the range of issues addressed by urban and regional planners and the role GIS plays in supporting the decision process

Prerequisites: Successful completion of two GIS core courses.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

January 9-11, 2007 Washington, DC
July 31 – August 2, 2007 . . Washington, DC

GIS Tools and Techniques: Raster and 3D Modeling NEW

GIST9002T

Learn the raster data model and its use for spatial analysis. Data that vary continuously through space are often best represented and analyzed using this data model. Raster data structures, analysis techniques and surface modeling are the main components of the course as well as raster and vector conversion and integration. You also learn about 3D representations of data to demonstrate the utility of this developing technology for improved surface and terrain analysis, and data visualization.

What you will learn

- The raster data model
- Analysis operations on rasters
- Raster calculations
- 3D data and modeling
- 3D visualization, display and analysis

Who should attend

Analysts and users who want to acquire skill in virtual analysis and visualization environments.

Course Objectives

Upon completion of this course you will be able to:

- Identify the structure and value of the raster data model
- Convert raster data to and from the vector data model
- Use analysis procedures on literal and conceptual surfaces
- Generate raster layers through interpolation
- Use 3D representations of raster and vector data
- Create triangulated irregular networks (TIN's) for surface modeling and analysis

Prerequisites: Successful completion of two GIS core courses.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

July 25-27, 2006 Washington, DC
July 24-26, 2007 Washington, DC

GIS Tools and Techniques: Remote Sensing for GIS NEW

GIST9003T

Remote sensing is the collection of data from a distance. This technology includes satellite imagery, aerial photography and the global positioning system (GPS), all of which are prominent sources of data for geographic information systems (GIS). You learn about the principles of remote sensing, the systems and types of data collected, and how they are integrated and used in a GIS environment.

What you will learn

- Principles of remote sensing
- Integration of imagery and GIS
- Aerial and satellite collection systems
- Accuracy assessments
- The Global Positioning System

Who should attend

GIS users involved with satellite imagery, aerial photography or other remotely-sensed data.

Course Objectives

Upon completion of this course you will be able to:

- Explain the underlying science and theory of aerial photography and remote sensing data and techniques
- Identify the pre- and post-processing methodologies of digital image processing such as image registration, rectification and conversion
- Perform image classification and accuracy assessments
- Integrate digital imagery into your GIS analysis and mapping projects
- Explain the fundamentals of the Global Positioning System, its application and integration into geographic information systems

Prerequisites: Successful completion of two GIS core courses.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

February 6-8, 2007 Washington, DC

GIS Applications: Business Intelligence

NEW

GIST9004T

This course covers common datasets and business analysis techniques used in the Business Intelligence and the developing Location Based Services (LBS) sectors. The course uses case studies and hands-on exercises that demonstrate the power of GIS when applied to business issues. Special attention is given to Web-mapping and the integration of data, maps and GIS output into everyday office reports and documents.

What you will learn

- Application of Geospatial Business Intelligence
- Business intelligence data
- Geospatial Analysis Techniques for Business Intelligence
- Server-Side business intelligence
- Location based services
- Networking and routing technology and applications
- Integration of Results and Analysis in office reports and documents

Who should attend

Those working in marketing, real estate or other commercial operations and those desiring a thorough understanding of how geospatial tools are applied in the commercial sector.

Course Objectives

Upon completion of this course you will be able to:

- Locate, acquire and integrate Business Intelligence data into a geographic information system
- Become familiar with traditional spatial analysis techniques for Business Intelligence.
- Understand the principles and methodologies of the geocoding process
- Explore the technologies and possibilities of server-side geographic analysis for BI
- Learn about the growing Location Based Services marketplace, its methods and its applications
- Understand the specific data needs and technical issues related to Networking and Routing applications
- Learn to integrate the results of BI analysis into office documents

Prerequisites: Successful completion of two GIS core courses.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

May 1-3, 2007 Washington, DC

GIS Applications: National and Homeland Security

NEW

GIST9005T

Security has become a critical issue in recent years. GIS have been used in the defense and intelligence fields for decades and play vital roles in a number of areas that now come under the purview of Homeland Security. This course presents a selection of the wide range of topics that play a role in national security both domestically and in the international arena. Case studies range from large-scale, facility-based security assessment to national level modeling. Key organizations and data sources are reviewed. Student tasks include conceptual problem solving, team-based analysis and hands-on computer exercises.

What you will learn

- GIS in National Defense operations
- Data sources and data types
- Homeland Security operations
- Application at scale
- Modeling for preparedness and response

Who should attend

This course is for those working in defense, intelligence and Homeland Security positions or those desiring an overview of how geospatial tools are applied in these sectors.

Course Objectives

Upon completion of this course you will be able to:

- Know the major defense and intelligence organizations utilizing GIS
- Know the diverse range of applications of GIS in defense and intelligence operations
- Be familiar with the main data sources and types, their specifications and their utility in defense operations
- Understand the importance of spatial data at all scales of application and concern
- Know the role of GIS in the many aspects of Homeland Security
- Be familiar with the application of GIS to a range of security issues
- Know the source and specification of critical infrastructure datasets and their integration for effective security analysis

Prerequisites: Successful completion of two GIS core courses.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

April 10-12, 2007 Washington, DC
September 18-20, 2007 Washington, DC

GIS Tools and Techniques: GIS Program Development and Management

NEW

GIST9006T

The pursuit of a Geographic Information System (GIS) analysis process involves a number of specific steps. You learn a structured approach to GIS project development, from conceptualization to final results, with special attention to real-life issues you will face on the job at each stage. You apply the structured approach to complete an individual GIS analysis project.

What you will learn

- Review of GIS as a system
- Project management techniques for GIS
- Conceptualizing GIS projects
- The GIS project model
- Self-directed GIS analysis project

Who should attend

Anyone using GIS software or newly introduced to the technology.

Course Objectives

Upon completion of this course you will be able to:

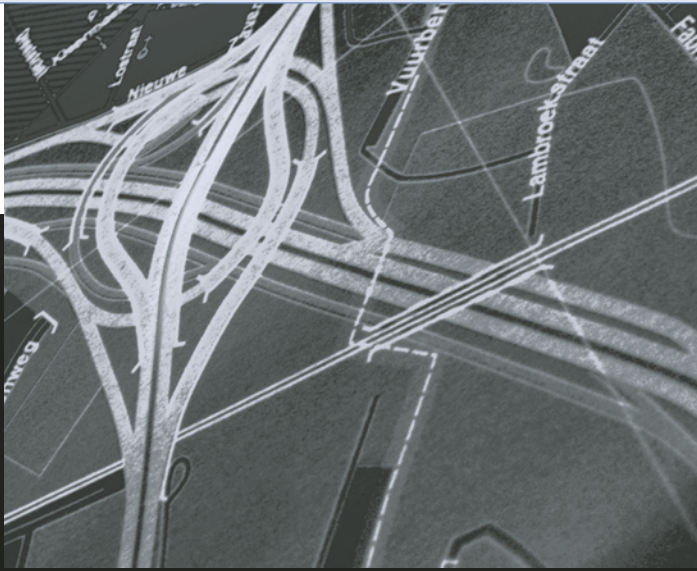
- Apply basic project management skills for organizing and pursuing a GIS project
- Apply conceptual process of performing a GIS analysis project
- Segment a problem or question into specific GIS procedures and operations
- Perform common operations performed in GIS
- Explain how the data, analysis and presentation aspects of GIS interrelate to produce successful GIS analysis and communication

Prerequisites: Successful completion of two GIS core courses.

3 Days | 1.8 CEU | Tuition \$895

Schedule:

June 5-7, 2007. Washington, DC



GIS Technical Certificate

GIST8900T

Participants complete a selection of introductory, core and elective courses that provide the foundation and context for GIS. These courses address the key components of the technology. The cornerstone of the introductory courses is a technical software course utilizing ArcGIS by Environmental Systems Research Institute (ESRI), introducing you to the fundamentals of the software that will be used for most of the hands-on exercises throughout the program.

You complete the certificate program with core and elective courses that help you focus on topics or application areas that are most relevant to your needs. There are two primary categories of elective courses: tools and technique courses, focusing on advanced technology topics, and application area courses, geared toward specific industry areas where GIS are applied. Application areas courses incorporate case studies, as well as pertinent hands-on exercises.

For those that have some GIS knowledge or software experience, the Introductory (software and introduction to GIS) courses may be substituted by additional elective courses to fill out the five-course requirement. Completion of three additional GIS courses meets the requirements for the GIS Professional Certificate; see GIST9900T.

Introductory Courses

Introduction to GIS Technologies | GIST7001T | 1.8 CEU

Introduction to GIS Software: ESRI ArcGIS 9.x | GIST7000T | 1.8 CEU

Core Courses

Required:

GIS Project Development and Process | GIST8001T | 1.8 CEU

Select one:

Spatial Databases and Database Development | GIST8002T | 1.8 CEU

Spatial Analysis Using GIS | GIST8003T | 1.8 CEU

Cartographic Issues: Map Projections and Map Design
GIST8000T | 1.8 CEU

Electives

Select one:

GIS Applications: Business Intelligence
GIST9004T | 1.8 CEU

GIS Applications: Environmental and Natural Resource Management
GIST9000T | 1.8 CEU

GIS Applications: National and Homeland Security
GIST9005T | 1.8 CEU

GIS Applications: Urban Planning and Development
GIST9001T | 1.8 CEU

GIS Tools and Techniques: GIS Program Development and Management
GIST9006T | 1.8 CEU

GIS Tools and Techniques: Raster and 3D Modeling
GIST9002T | 1.8 CEU

GIS Tools and Techniques: Remote Sensing for GIS
GIST9003T | 1.8 CEU

GIS Professional Certificate

GIST9900T

(8 courses required)

Participants complete a selection of introductory, core and elective courses that provide knowledge and skills needed by professional GIS users. The courses address the key components of the technology. The cornerstone of the introductory courses is a technical software course utilizing ArcGIS by Environmental Systems Research Institute (ESRI), introducing you to the fundamentals of the software that will be used for most of the hands-on exercises throughout the program.

You complete the certificate program with core and elective courses that help you focus on topics or application areas that are most relevant to your needs. There are two primary categories of elective courses: tools and technique courses, focusing on advanced technology topics, and application area courses, geared toward specific industry areas where GIS are applied. Application areas courses incorporate case studies, as well as pertinent hands-on exercises.

For those that have some GIS knowledge or software experience, the Introductory (software and introduction to GIS) courses may be substituted by additional elective courses to fill out the eight-course requirement.

Introductory Courses

Introduction to GIS Technologies | GIST7001T | 1.8 CEU

Introduction to GIS Software: ESRI ArcGIS 9.x | GIST7000T | 1.8 CEU

Core Courses

GIS Project Development and Process | GIST8001T | 1.8 CEU

Spatial Databases and Database Development | GIST8002T | 1.8 CEU

Spatial Analysis Using GIS | GIST8003T | 1.8 CEU

Cartographic Issues: Map Projections and Map Design
GIST8000T | 1.8 CEU

Electives

(select two):

GIS Applications: Business Intelligence | GIST9004T | 1.8 CEU

GIS Applications: Environmental and Natural Resource Management
GIST9000T | 1.8 CEU

GIS Applications: National and Homeland Security
GIST9005T | 1.8 CEU

GIS Applications: Urban Planning and Development
GIST9001T | 1.8 CEU

GIS Tools and Techniques: GIS Program Development and Management
GIST9006T | 1.8 CEU

GIS Tools and Techniques: Raster and 3D Modeling
GIST9002T | 1.8 CEU

GIS Tools and Techniques: Remote Sensing for GIS
GIST9003T | 1.8 CEU



INTEGRATION

Microsoft Office 2003 Integration

INTE7853T

This course introduces procedures for integrating and assembling components of the Microsoft Office Suite. Instead of tiling or minimizing screen windows to access multiple programs in concurrent sessions, students use the Office Manager to open, display and switch among applications. In addition, participants increase their understanding of the advanced capabilities within the Office Suite 2003 and learn how to structure these capabilities for greater office productivity.

What you will learn

- Use of the Office Manager and cue cards
- Command processes for the Office Manager menu
- Use of the buttons from the Office Manager toolbar
- Use of the mail merge features among applications such as Word, Outlook and Excel
- The process of data transfer among Office 2003 applications
- Scheduling meetings with NetMeeting

Who should attend

This course is intended for Microsoft Office Suites 2003 users who want to employ a combination of applications in their work environment.

Course Objectives

Upon completion of this course you will be able to:

- Import text and tables from Word for use in PowerPoint presentations
- Create Interactive Excel Pivot Tables for the Web
- Utilize mail merge with Word and Outlook
- Develop mail merge letters in Word using Excel data
- Export data from Excel to other Office 2003 applications
- Export Access database records to Excel
- Create Access data pages for the Web

Prerequisites: The appropriate versions of Microsoft Windows: Introduction; Microsoft Word: Introduction; Microsoft Excel: Introduction and Microsoft PowerPoint: Introduction.

2 Days | 1.2 CEU | Tuition \$625

Schedule:

January 16-17, 2007 Washington, DC
June 6-7, 2007 Washington, DC

We'd like to
introduce you
to some of
our friends.

The Graduate School offers courses and certificates that can be accepted for credit at many degree-granting institutions.

For more information about
our Partners in Education,
visit [www.grad.usda.gov/
partners](http://www.grad.usda.gov/partners).

Voice Recognition Using Microsoft Office

INTE7873T

Learn how to control the four software applications in MS Office 2003 with your voice. This is a great tool for the slow typist or those with physical handicaps. Attendees learn to create professional looking documents using Word, Excel, Access and Power-Point. Training focuses on the voice command mode where users learn to move directly to menu and icon options without moving a cursor through the drop down menus. Users also learn to dictate text in MS Word to create letters, flyers and other complex documents. Integration features of the package are also covered. Anyone with MS Office XP or 2003 can use these features by simply purchasing a headphone set to use with their computer. This comprehensive introduction positions users to take full advantage of this application.

What you will learn

- Set up of voice recognition for MS Office
- Training of voice recognition for MS Office
- Voice command operation of menus and icons for all packages
- Dictation of data using Word and Power-Point
- Integration of packages using voice commands

Who should attend

People who are interested in learning the latest data entry mode will enjoy this class. It is great for people who need to enter data but would like to avoid typing. This course is designed for MS Office users who have some familiarity with at least one of the packages.

Course Objectives

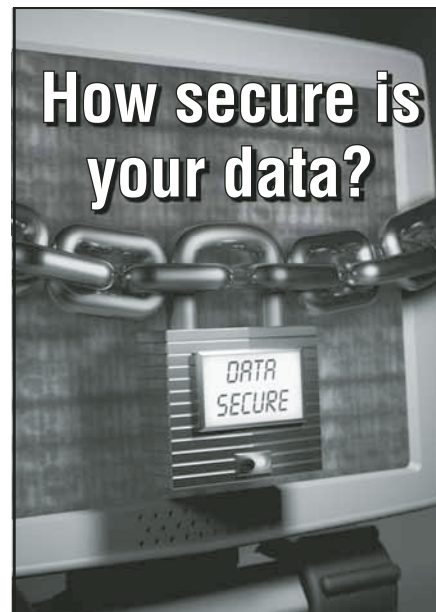
Upon completion of this course you will be able to:

- Create Word documents with clip art, graphics and other advanced features using voice recognition
- Control Excel spreadsheet functions using voice recognition
- Design Powerpoint presentations using your voice rather than menus and key-strokes
- Perform basic functions on Access tables, forms and reports using voice commands
- Integrate Excel tables and charts, as well as Word data, into Powerpoint presentations via voice recognition
- Execute most MS Office menu commands with your voice

2 Days | 1.2 CEU | Tuition \$725

Schedule:

September 6-7, 2006 Washington, DC
November 7-8, 2006 Washington, DC
April 18-19, 2007 Washington, DC
June 6-7, 2007 Washington, DC
September 5-6, 2007 Washington, DC



Master of Science in Network Security from Capitol College, a Center of Academic Excellence in Information Assurance (IA) Education

Capitol College is one of a select number of institutions named by the National Security Agency as a National Center of Academic Excellence in IA Education. Courses are available online and are taught by some of the nation's leading experts in the field of network and information security. The Graduate School, USDA and Capitol College have come together to offer professionals and specialists an online Certificate in Security Management. Learn to prepare for, respond to and recover from threats to information infrastructure. For information on the certificate, see page 70.

Completing courses at the Graduate School, USDA in Security Management offers participants an additional benefit: you may apply up to three of these courses toward the Master of Science in Network Security from Capitol College.

INTERNET

ColdFusion Application Development

INET7740T

This five-day course is designed for students who want to learn how to develop Web-based applications using Macromedia's ColdFusion Application Server. Participants are exposed to the primary constructs of the ColdFusion markup language (CFML), gaining the knowledge to embed CFML instructions into HTML documents to produce dynamically generated Web pages.

What you will learn

- Basic ColdFusion markup language syntax and structure
- How to use the ColdFusion Administrator
- Elements and usages of the ColdFusion application server
- Processes to perform file operations within Web pages
- Operations to pass URL variables between templates
- Uses of functions to modify data variables

Who should attend

This course is intended for Web designers, developers, managers and publishers who want to enhance their Web-based skills.

Course Objectives

Upon completion of this course you will be able to:

- Build ColdFusion forms
- Create and modify ColdFusion templates in Dreamweaver MX
- Query a database to retrieve information into a dynamic Web page
- Implement transaction processing
- Perform error handling processes
- Update and display database information

Prerequisites: HTML Programming: Introduction (INET7712T) and HTML Programming: Intermediate (INET8835T), or equivalent, and knowledge of SQL and relational database design.

5 Days | 3.0 CEU | Tuition \$1,095

Schedule:

September 18-22, 2006 Washington, DC
 March 12-16, 2007 Washington, DC
 September 17-21, 2007 Washington, DC

HTML Programming: Introduction

INET7712T

This course introduces the Hypertext Markup Language (HTML), a software language used to create a Web site locally or on a World Wide Web server. Composing HTML code to create linked documents embedded with graphical images and generating HTML programs using code generators is a major focus of this class. Attendees are also exposed to page layout techniques and the inclusion of tables in their code. Participants learn the proper HTML coding standards, styles and techniques accepted by popular Web browser programs.

What you will learn

- Basic HTML commands and syntax
- Style and format of home page documents
- Table and forms processing
- Markup tag and character entities
- Hyperlink and image inclusion

Who should attend

Individuals who wish to exercise control over their Web sites and make multimedia information available to others on the Internet will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Relate the interconnection among hypertext, hypermedia, markup language and Web browser
- Utilize tags to document structure and body text formatting
- Incorporate images and list structures
- Apply text wrapping in page layouts
- Incorporate hyperlinks using complete and relative URLs
- Create tables with captions, cell formatting and cell color

Prerequisites: Knowledge of Microsoft Windows and the Internet.

2 Days | 1.2 CEU | Tuition \$695

Schedule:

September 5-6, 2006 Washington, DC
 October 30-31, 2006 Washington, DC
 December 4-5, 2006 Washington, DC
 February 26-27, 2007 Washington, DC
 April 30 – May 1, 2007 Washington, DC
 June 25-26, 2007 Washington, DC
 September 4-5, 2007 Washington, DC

HTML Programming: Intermediate

INET8835T

This course is designed for intermediate-level HTML authors who wish to use the advanced capabilities and proprietary features of HTML to enhance their Web pages. The latest HTML standards, transparent images, animated GIFs and common design dos and don'ts are the primary content of this course. Hands-on, innovative uses of tables, frames and forms are also covered.

What you will learn

- Web design principles
- HTML extensions
- Tables, frames and forms
- Animated GIFs
- Image maps

Who should attend

Individuals who wish to exercise greater control over their Web sites and to employ sophisticated uses of HTML will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Develop HTML forms, including radio buttons and checkboxes
- Create and implement animations and image maps
- Utilize the EMBED tab for movies and sound
- Perform log analysis and surveys for HTML validation and testing
- Perform Web site planning and Web and document design for Web page creation

Prerequisites: HTML Programming: Introduction (INET7712T) and knowledge of Microsoft Windows.

2 Days | 1.2 CEU | Tuition \$695

Schedule:

September 7-8, 2006 Washington, DC
 December 6-7, 2006 Washington, DC
 February 28 – March 1, 2007 Washington, DC
 May 2-3, 2007 Washington, DC
 July 2-3, 2007 Washington, DC
 September 6-7, 2007 Washington, DC

Graduate School, USDA online courses are instructor-led and available on the Blackboard platform. Once you register for an online course the Graduate School will e-mail you your password and the information you need to access the course. Instructors design the 8-week and 3-week courses. The same instructors will assign and evaluate projects, providing feedback to the students regarding their progress. Instruction is enhanced through interactivity and through collaboration via discussion board and e-mail. Instructors are available via e-mail to answer questions.

HTML Programming (Introduction through Advanced) (Online)

INET9712T

This online, instructor-led course introduces the Hypertext Markup Language (HTML), a software language used to create a Web site locally or on a World Wide Web server. The course is offered in two modules: (1) Module I focuses on composing HTML code to create linked documents embedded with graphical images and generating HTML programs using code generators. Participants learn the proper HTML coding standards, styles and techniques accepted by popular Web browser programs. Additionally, attendees are exposed to page layout techniques and the inclusion of tables in their code. (2) Module II covers intermediate to advanced HTML, enhanced capabilities and proprietary features. The latest HTML standards, transparent images, animated GIFs and common design dos and don'ts are the primary content of this module. Hands-on, innovative uses of tables, frames and forms are also covered.

What you will learn

- Basic HTML commands and syntax
- Style and format of home page documents
- Table and form processing
- Markup tag and character entities
- Hyperlink and image inclusion
- Web design principles
- HTML extensions
- Tables, frames and forms
- Animated GIFs
- Image maps

Who should attend

Individuals who wish to exercise control over their Web sites and make multimedia information available to others on the Internet will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Discuss the interconnections among hypertext, hypermedia, markup language and Web browsers
- Utilize tags to document structure and body text formatting
- Incorporate images and list structures
- Incorporate hyperlinks using complete and relative URLs
- Create tables with captions, cell formatting and cell color
- Process HTML forms, including radio buttons and checkboxes
- Create and implement animations and image maps
- Utilize the EMBED tag for movies and sound
- Perform log analysis and surveys for HTML validation and testing
- Perform Web site planning and Web and document design for Web page creation

8 Weeks | 5.0 CEU | Tuition \$995 plus course materials

Schedule:

September 5 – October 31, 2006
March 12 – May 4, 2007
May 7 – July 2, 2007

Human Interface Design

INET9931T

This two-day course provides a framework that allows participants to structure “user-friendly” Web content. Students learn to follow a user-based process for building Web sites, incorporate user-accessibility cues into Web pages and use effective layout principles. All workshop materials contribute to the central focus of making information on the Web readily understandable. Participants explore effective site-wide navigation systems, review the latest Web research findings and discuss ways to benefit from the interactive nature of online documents.

What you will learn

- The ability to achieve consistency and support usability throughout a Web site
- Content design
- Site design
- HTML and link validation processes
- Web page testing procedures

Who should attend

This course is designed for individuals responsible for creating or maintaining Internet or intranet Web sites.

Course Objectives

Upon completion of this course you will be able to:

- Structure content to maintain user orientation
- Design usable and visually appealing Web sites
- Facilitate access to information on a Web site
- Execute design techniques that are unique to the Web
- Maximize the quality of images while minimizing download times
- Apply research findings in the development of Web sites

2 Days | 1.2 CEU | Tuition \$595

Schedule:

September 28-29, 2006 . . . Washington, DC
November 28-29, 2006 . . . Washington, DC
April 4-5, 2007 Washington, DC
September 27-28, 2007 . . . Washington, DC

Java: Introduction

INET7719T (formerly INET7718T)

This five-day course introduces students to the fundamentals of Java programming. Java is one of the premier cross-platform programming language products that allow the development of interactive applications on the World Wide Web. Participants work in a hands-on environment, using the Java platform to create applications and applets, design and create a screen form, and build an Internet home page from beginning to end.

What you will learn

- Basics and structure of the Java language
- Program flow and control within the language
- Applet generation
- The Abstract Window Toolkit (AWT)
- Use of the Layout Manager under the AWT
- The GUI and event handling under Java

Who should attend

This course is for individuals responsible for home page design and/or development, Web-Masters and those who want to learn the Java language.

Course Objectives

Upon completion of this course you will be able to:

- Apply Java object-oriented classes
- Apply data concepts, operators, expressions and methods in Java
- Develop applications and applets using Java's run-time class libraries
- Utilize the Layout Manager to create a form
- Utilize Java's AWT and GUI processes to create a Web page

Prerequisite: Internet and Microsoft Windows knowledge.

5 Days | 3.0 CEU | Tuition \$1,095

Schedule:

July 31 – August 4, 2006 . . Washington, DC
October 23-27, 2006 Washington, DC
April 30 – May 4, 2007 . . . Washington, DC
July 30 – August 3, 2007 . . Washington, DC

Can I talk to a live person?

You sure can!
Call (888) 744-GRAD.

Macromedia Dreamweaver: Introduction

INET7885T

In this two-day course, the fundamentals of this powerful Web development software tool are introduced and applied in a hands-on environment. Participants learn the basic skills of adding text, graphics and links to a Web page, as well as how to instantly add Flash text and buttons. Students also utilize forms, libraries, templates and frames and learn to manage a Web site through Dreamweaver facilities.

What you will learn

- Elements of page design and layout in Dreamweaver
- How to work with graphics
- How to create links
- The use of tables in Web page design
- Forms creation
- Web site management processes within the software

Who should attend

This course is intended for Web designers, Web developers, Web managers and Web publishers who wish to learn a Web development software tool.

Course Objectives

Upon completion of this course you will be able to:

- View and manage HTML code within the Dreamweaver application
- Utilize templates and Site Panel to build a Web site
- Add content to Web pages with lists, images and tables
- Construct links within a site
- Enhance navigation in a site with frame-sets and Navigation bars
- Check for orphaned files and incorrect links in the management of a Web site
- Perform partial and complete site uploads

Prerequisite: Knowledge of Microsoft Windows.

2 Days | 1.2 CEU | Tuition \$745

Schedule:

July 24-25, 2006 Washington, DC
 September 25-26, 2006 Washington, DC
 November 13-14, 2006 Washington, DC
 February 26-27, 2007 Washington, DC
 July 23-24, 2007 Washington, DC
 September 24-25, 2007 Washington, DC

Macromedia Dreamweaver: Advanced

INET9885T

This two-day course emphasizes the more advanced features of the Dreamweaver Web development software. Through a series of hands-on projects, participants utilize the Insert Navigation Bar Tool, work with Flash buttons and text, define head elements and style sheets, and work with layers to insert media objects.

What you will learn

- The use of rollovers
- The use of libraries to store commonly used site elements
- The use of tags for indexing and to control attributes
- The use of Cascading Style Sheets
- Layers and behaviors
- Browser capabilities for navigating Web sites

Who should attend

Individuals who are responsible for creating Web sites and wish to learn the additional complexities of Macromedia Dreamweaver will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Create user-interface elements including navigation bars
- Create Cascading Style Sheets (CSS) to facilitate text formatting
- Compose and manage layers
- Utilize the History panel to simplify repetitive tasks
- Place a form on a Web page
- Utilize libraries to store and facilitate usage of repeating elements in a Web site

Prerequisite: Macromedia Dreamweaver MX: Introduction (INET7885T).

2 Days | 1.2 CEU | Tuition \$745

Schedule:

July 26-27, 2006 Washington, DC
 September 27-28, 2006 Washington, DC
 November 15-16, 2006 Washington, DC
 July 25-26, 2007 Washington, DC
 September 26-27, 2007 Washington, DC

Macromedia Fireworks: Introduction

INET8110T

This two-day course emphasizes the creation, editing and implementation of sophisticated graphics for the Web using Macromedia Fireworks. Participants learn a wide range of features for applying both vector and bitmap graphic tools in Web page design. In hands-on exercises, students create and revise graphical objects with vector-object flexibility and apply bitmap effects including bevels, glows, drop shadows and Photoshop filters that redraw automatically as the edits progress.

What you will learn

- Effective creation of Web-based graphics
- Rollovers
- Slices
- Hotspots
- Bitmap editing
- Blur, sharpen and alter images

Who should attend

This course is intended for Web designers, Web developers, Web managers and Web publishers. Any individual who has interest in the use of graphics in the creation of Web pages would benefit from this training.

Course Objectives

Upon completion of this course you will be able to:

- Create vector shapes and text
- Import and edit bitmap images
- Align objects in a document
- Create JavaScript buttons and a pop-up menu
- Add links to buttons and create simple and disjoint rollovers
- Create animations and complex navigation features on Web pages

Prerequisite: The appropriate version of Microsoft Windows: Introduction.

2 Days | 1.2 CEU | Tuition \$745

Schedule:

August 30-31, 2006 Washington, DC
 December 11-12, 2006 Washington, DC
 May 24-25, 2007 Washington, DC
 August 29-30, 2007 Washington, DC

Macromedia Flash: Introduction

INET7710T

Macromedia Flash is a primary application for designing and delivering low-bandwidth animations and presentations on Web sites. Participants in this two-day course explore and learn the software's fundamental capabilities and how to perform functions such as manipulating objects, building layers, adding text with behavioral and appearance characteristics, and publishing a Flash movie with added musical tracks.

What you will learn

- The Flash work environment
- Object transforming and grouping
- Drawing and painting tools
- Working with text blocks and converting text into shapes
- Animation processes and layers in a movie
- Publishing processes

Who should attend

This course is oriented toward Web designers, publishers, developers and administrators who wish to gain additional skill in enhancing Web pages.

Course Objectives

Upon completion of this course you will be able to:

- Draw, paint and create custom colors and line styles
- Build layers and use them to create animation effects
- Create frame-by-frame, shape-tweened and motion-tweened animation
- Utilize Flash with full video and audio effects
- Manipulate objects, experiment with shape interaction and import artwork

Prerequisite: HTML Programming: Introduction (INET7712T).

2 Days | 1.2 CEU | Tuition \$725

Schedule:

September 25-26, 2006 Washington, DC
 March 14-15, 2007 Washington, DC
 May 29-30, 2007 Washington, DC
 September 24-25, 2007 Washington, DC

Microsoft FrontPage 2003: Introduction

INET7790T

This two-day course helps participants explore the essential features and techniques of Microsoft FrontPage to build professional-quality Internet Web sites. In this hands-on class, participants learn to format, edit and lay out Web pages. Students are taught to utilize the FrontPage Explorer to build and test Web sites of multiple pages linked together. Participants will also receive exposure to the Microsoft Image Composer, a companion graphics program included with the FrontPage application package, and gain experience in techniques for structuring and organizing information on the Web.

What you will learn

- Elements of page design and layout in FrontPage and applicable to all Web page design
- The benefits of using a Web page editor
- Guidelines for Web page construction
- How to apply templates and wizard to build entire Web sites
- The use of tables to structure text and graphics
- The modification of HTML code directly

Who should attend

This course is for any individual who wishes to use FrontPage as a tool for Web page creation.

Course Objectives

Upon completion of this course you will be able to:

- Build a complete Web site
- Customize and manage Web pages and images
- Create and utilize interactive forms
- Import information from MS Office and other sources
- Insert hyperlinks into Web pages
- Manage entire Web sites easily

Prerequisites: Knowledge of Windows and the Internet.

2 Days | 1.2 CEU | Tuition \$625

Schedule:

July 10-11, 2006 Washington, DC
 September 11-12, 2006 Washington, DC
 January 4-5, 2007 Washington, DC
 April 2-3, 2007 Washington, DC
 July 9-10, 2007 Washington, DC
 September 10-11, 2007 Washington, DC

Microsoft FrontPage 2003: Advanced

INET9942T

This three-day course extends the uses of Microsoft FrontPage as a Web site tool. Participants learn to use FrontPage advanced features to manage and update a Web site, insert form fields on a Web page and connect a Web site to organizational databases. In addition, students generate dynamic multimedia components for insertion into Web pages and design more sophisticated layouts using internal tables.

What you will learn

- Use of the Database Interface Wizard to create database editor pages
- Use of frames for database access
- Use of Subsites
- Web page creation through a Tracing Image
- Customization of tables and adding search capabilities to a Web site
- Use of Dynamic Web Templates, layers and behaviors on a Web page

Who should attend

This course is for anyone who is responsible for creating Web sites and has completed the introductory course in Microsoft FrontPage.

Course Objectives

Upon completion of this course you will be able to:

- Create and organize a Web site
- Design, enhance and customize tables to lay out a Web page
- Create a form, insert form fields on a Web page and prepare information to be used by a database
- Design, use and modify frames for database results
- Connect a Web site to a database
- Utilize the Image Composer for multimedia enhancements: Macromedia Flash animation, audio and video

Prerequisite: Microsoft FrontPage 2003: Introduction (INET9942T).

3 Days | 1.8 CEU | Tuition \$825

Schedule:

September 13-15, 2006 Washington, DC
 January 10-12, 2007 Washington, DC
 April 4-6, 2007 Washington, DC
 September 12-14, 2007 Washington, DC

Graduate School, USDA online courses are instructor-led and available on the Blackboard platform. Once you register for an online course the Graduate School will e-mail you your password and the information you need to access the course. Instructors design the 8-week and 3-week courses. The same instructors will assign and evaluate projects, providing feedback to the students regarding their progress. Instruction is enhanced through interactivity and through collaboration via discussion board and e-mail. Instructors are available via e-mail to answer questions.

Microsoft FrontPage 2003 (Introduction through Advanced) (Online)

INET9842T

In this online, instructor-led course on Microsoft FrontPage you learn to build Web pages and complete Web sites. This online MS FrontPage course consists of two modules.

Module I helps participants explore the essential features and techniques of Microsoft FrontPage in order to build professional-quality Internet Web sites. Learn to format, edit and lay out Web pages and to utilize the FrontPage Explorer to build and test Web sites of multiple pages linked together. Participants also receive exposure to the Microsoft Image Composer, a companion graphics program included with the FrontPage application package, and gain experience in techniques for structuring and organizing information on the Web.

In Module II, participants learn to use FrontPage advanced features to manage and update a Web site, insert form fields on a Web page and connect a Web site to organizational databases. In addition, students generate dynamic multimedia components for insertion into Web pages as well as design sophisticated layouts using internal tables.

What you will learn

- Elements of page design and layout in FrontPage applicable to all Web page design
- Guidelines for Web page construction
- How to apply templates and wizards to build entire Web sites
- The use of tables to structure text and graphics
- The modification of HTML code directly
- Use of the Database Interface Wizard to create database editor pages
- Use of frames for database access
- Use of Subsites
- Web page creation through a Tracing Image
- Customization of tables and adding search capabilities to a Web site

Who should attend

This course is intended for Web designers, Web developers, Web managers and Web publishers who wish to learn a Web development software tool.

Course Objectives

Upon completion of this course you will be able to:

- Customize and manage Web pages and images
- Create and utilize interactive forms
- Import information from MS Office and other sources
- Insert hyperlinks into Web pages
- Create, organize and manage entire Web sites
- Design, enhance and customize tables to lay out a Web page
- Create a form, insert form fields on a Web page and prepare information to be used by a database
- Design, use and modify frames for database results
- Connect a Web site to a database
- Utilize the Image Composer for multimedia enhancements: Macromedia Flash animation, audio and video

8 Weeks | 5.0 CEU | Tuition \$995 plus course materials

Schedule:

September 5 – October 31, 2006
January 8 – March 6, 2007
May 7 – July 2, 2007

XML for the Web: Introduction

INET7550T

This five-day course examines the eXtensible Markup Language (XML), a recent and maturing technology for the management, display and organization of data on the Web. Under the auspices of the WWW Consortium, standards have been introduced that make XML a major tool for advanced Web development and a viable alternative to the usage of HTML. Participants learn how XML capabilities, including XML linking, XML e-commerce, server-to-server XML and XML databases, will work for programmers in their development activities for Web-based applications.

What you will learn

- XML overview and historical origins
- The internal features applied in XML documents
- The usages of Document Type Definitions (DTDs)
- The use of eXtensible Stylesheet Language Transformation (XSLT) as a change agent
- Uses of XLink and XPointer

Who should attend

This class is directed toward Web content developers, Web software engineers, programmers, client/server developers and WebMasters.

Course Objectives

Upon completion of this course you will be able to:

- Plan, design and construct an XML document
- Bind XML data with Internet browsers
- Utilize cascading style sheets
- Understand and apply the fundamental processes for validating XML documents
- Utilize Namespaces and Schemas with XML to ensure proper data integrity
- Work with XSLT elements and attributes to reconstruct XML documents into different XML structures

Prerequisites: Knowledge of Windows and the Internet.

5 Days | 3.0 CEU | Tuition \$1,375

Schedule:

July 24-28, 2006 Washington, DC
March 26-30, 2007 Washington, DC
July 23-27, 2007 Washington, DC

INFORMATION TECHNOLOGY INFRASTRUCTURE LIBRARY (ITIL®)

ITSM Executive Awareness Seminar

NEW

ITEC7726T

The Service Management Executive Awareness one-day seminar provides a general overview of the ITIL Service Management disciplines, benefits and justification. This course is ideal for management and staff who might be involved in the periphery of IT Service Management, or those who are new to the concepts of ITIL (Information Technology Infrastructure Library) and need a broad, brief introduction.

What you will learn

- Introduction to service management
- Service level management
- Configuration management
- Change management
- IT service continuity management
- Financial management for IT services
- Capacity management

Who should attend

The course is geared to managers wishing to obtain a broad, yet focused, overview of IT Service Management.

Course Objectives

Upon completion of this course you will be able to:

- Describe how service management can facilitate the alignment of IT process to business objectives
- Understand the ITIL Service Management model sufficient to enable you to communicate how it could be adapted to your organization
- Make high-level go/no-go decisions
- Discuss options for next steps

1 day | 0.6 CEU | Tuition \$485

Schedule:

September 19, 2006 Washington, DC
December 5, 2006 Washington, DC
March 20, 2007 Washington, DC
May 17, 2007 Washington, DC

ITIL Service Management Foundation Course

NEW

ITEC7004T

This three-day course provides IT Managers and Practitioners with a practical understanding of IT Service Management, the underpinning core ITIL Service Delivery, and Service Support Processes and implementation guidance. It describes a set of processes involved in developing an IT framework and features both lectures and interactive hands-on learning experiences throughout. This results in a thorough grounding in the basic theory of ITSM, which can be used to take the Foundation Certificate in IT Service Management or to participate in ITSM projects at any level. The ITIL Foundations Certificate Exam is administered by EXIN at the end of the course.

What you will learn

- A consistent "best practices" communication of IT terminology and procedures
- Current insights into the process relationships of business and technology management
- Which processes are essential to support and deliver a quality IT service
- How these processes relate to each other and to wider IT issues
- Practical guidance on how to successfully introduce an integrated IT service management framework, based on ITIL best practice processes

Who should attend

IT management, business unit managers, IT services managers, supplier managers, consultants and those responsible for the support and implementation of information technology.

Course Objectives

Upon completion of this course you will be able to:

- Understand the definitions and use of the disciplines and associated processes that comprise the ITIL Service Support and Service Delivery elements
- Understand ITIL phrases and terminology
- Explain the purpose and use of each ITIL Service Support and Service Delivery discipline
- Articulate the relationships between each discipline
- Describe the importance of processes and interrelationships in providing a coherent set of IT services that support the organization's business requirements

Prerequisites: Experience with and knowledge of IT computing environments.

3 days | 1.8 CEU | \$1,035

Schedule:

August 8-10, 2006 Washington, DC
September 27-29, 2006 Washington, DC
November 13-15, 2006 Washington, DC
February 5-7, 2007 Washington, DC
June 12-14, 2007 Washington, DC

Change, Configuration and Release Management – Practitioner

NEW

ITEC8001T

This five-day course focuses on the implementation and management of the release and control processes and functions that are responsible for achieving control and stability within an IT infrastructure and include effective change and release management, based on an effective configuration management system.

It consists of four days of lectures and hands-on activities and one day of exam review with exam. The course will include individual and group assignments required for certification as well as homework. The ITIL Change, Configuration and Release Management – Practitioner certificate exam is administered by EXIN at the end of the course.

What you will learn

- The ability to develop, implement and manage an integrated change and release management framework using configuration management as a critical component
- The best practices for requesting, assessing, approving and deploying changes to IT services, and be able to relate how these processes contribute to an increase in functionality and quality of IT services
- The clustered disciplines of change, configuration and release management required to pass the ITIL Practitioner Release and Control Certification exam

Who should attend

Business managers, ITIL process managers, change managers and configuration managers needing in-depth knowledge about ITIL processes. Professionals and managers responsible for executing and managing the tasks for the specific ITIL processes.

Course Objectives

Upon completion of this course you will be able to:

- Plan the key activities in the change management, release management and configuration management process
- Report on the effectiveness and efficiency of the activities in the release and control processes
- Provide change, release and configuration management information to other IT service management, processes, users and suppliers
- Provide instruction for designing, building and configuring releases
- Monitor and optimize the release and control processes
- Plan and conduct change, release and configuration

Prerequisites: ITIL Foundation for IT Service Management and 2 or more years of experience in IT Infrastructure Management.

5 days | 3.0 CEU | \$2,295

Schedule:

September 11-15, 2006 Washington, DC
November 27 – December 1, 2006
..... Washington, DC
March 12-16, 2007 Washington, DC
June 25-29, 2007 Washington, DC

ITIL Service Level Management – Practitioner

NEW

ITEC8000T

This three-day course provides a clear understanding of the activities involved in planning for SLM, implementation of SLM, and the maintenance and monitoring of service level agreements. A service level agreement is a contract between an IT organization and a customer (organization) which describes the IT services to be delivered. You learn how to prepare, maintain, and negotiate service level agreements with a customer.

Participants will receive information necessary to establish effective service level and operational level agreements in support of business and IT services. Hands-on exercises are introduced to provide the participant with a practical application for negotiating with customers and maintaining SLM processes and activities within an organization. This course is ideal for those who will be involved in defining service level agreements or supporting SLM as a process discipline. The ITIL Service Level Management – Practitioner certificate exam is administered by EXIN at the end of the course.

What you will learn

- Introduction to training objectives
- A brief refresher on ITSM
- The implementation of service level management objectives
- Service Improvement Program (SIP)
- Relationship and links with other ITIL processes
- Required knowledge for the exam: service catalog, defining, service level agreement, monitoring, reporting, review

Who should attend

IT staff responsible for executing tasks within the Service Level Management process, who require a formal qualification. IT staff who require training in order to perform in a Service Level Management role. Service managers seeking in-depth practical knowledge about the Service Level Management process as described by ITIL (IT Infrastructure Library). Business analysts and other ITIL process managers with interest in the service level process.

YOU ARE OUTSTANDING!

Let us honor you.

The Graduate School, USDA presents the **W. Edwards Deming Outstanding Training Award** to a federal government organization or a civilian or uniformed branch of the military in recognition of an impressive workforce development and training initiative that has measurably improved the achievement of its mission.

For more information, visit www.grad.usda.gov/deming.

Course Objectives

Upon completion of this course you will be able to:

- Understand best practices in Service Level Management and be able to relate to how these processes contribute to the quality of IT services
- Develop sufficient knowledge for the ITIL Service Level Management Practitioners exam
- Use Service Level Management functions to maximize company bandwidth
- Identify links to other ITIL processes
- Effectively manage the relationship between parties involved in Service Level Agreements
- Prepare, maintain, and negotiate Service Level Agreements for large and small business partners

Prerequisites: The candidate should have successfully completed the ITIL Foundation Course for IT Service Management. The candidate should have a minimum of one year's general IT experience and at least one year's experience in an IT Service Level Management environment either as a practitioner, supervisor or manager.

3 days | 1.8 CEU | \$1,595

Schedule:

August 28-30, 2006 Washington, DC
 December 11-13, 2006 Washington, DC
 April 17-19, 2007 Washington, DC

“Get to Green” in**Enterprise
Architecture**

***Enterprise Architecture courses are
now available for on-site delivery!***

Enterprise Architecture (EA) is a blueprint for modernization. Our new EA curriculum is designed to equip both current and prospective enterprise architects, as well as interested technologists and line of business specialists, with the requisite knowledge and skills to implement a viable, cost-effective enterprise architecture within their organizations. Participants also gain the knowledge and skills to serve as effective “change agents” for processes, eliminating duplication of services and facilitating data sharing for effective decision making across the enterprise and government at large.

Specific requirements for achieving a score of “green” relative to OMB’s specified capability areas for “completion,” “use” and “results” as outlined in the *Federal Enterprise Architecture Program EA Assessment Framework 2.0* are emphasized throughout the program.

To inquire about offering enterprise architecture or any other courses at your agency, please call our IT training consultants at (202) 314- 3600 or e-mail appliedtech@grad.usda.gov.

NETWORK AND OPERATING SYSTEMS

Graduate School, USDA online courses are instructor-led and available on the Blackboard platform. Once you register for an online course the Graduate School will e-mail you your password and the information you need to access the course. Instructors design the 8-week and 3-week courses. The same instructors will assign and evaluate projects, providing feedback to the students regarding their progress. Instruction is enhanced through interactivity and through collaboration via discussion board and e-mail. Instructors are available via e-mail to answer questions.

A+ Core Module (Online)

TCOM9790T

The online, instructor-led A+ Core Module course is designed for individuals who need formal certification as personal computer technicians and network specialists. Participants are prepared to install, upgrade, maintain, troubleshoot and repair personal computers. Learn the functions and installation methods of system modules, how to install and configure IDE/EIDE and SCSI storage devices, and how to use common tools in computer repair. This course is part of the A+ Certification Program.

What you will learn

- Functions of system modules and field replaceable modules
- CPU chips, RAM, motherboards and CMOS
- IRQs, DMAs and I/O addressing
- Peripheral ports, cabling and connectors
- Lasers and high-voltage equipment
- Printer components, configurations and operations

Who should attend

Individuals who wish to prepare for the A+ Core Hardware examination.

Course Objectives

Upon completion of this course you will be able to:

- Install and remove field replaceable modules
- Install and configure mass storage devices
- Perform basic troubleshooting and preventive maintenance procedures
- Analyze and understand environmental hazard protection and initiate disposal procedures
- Utilize and apply proper ESD (electrostatic discharge) methods
- Organize and use proper tools for troubleshooting and repair

8 Weeks | 5.0 CEU | Tuition \$995 plus course materials

Schedule:

September 5 – October 31, 2006
March 12 – May 4, 2007
May 7 – July 2, 2007

A+ Core Module

TCOM9990T

The A+ Core Module course is designed for those individuals who desire formal certification as personal computer technicians and network specialists. Participants will be trained to install, upgrade, maintain, troubleshoot and repair personal computers. Learn the functions and installation methods of systems modules, how to install and configure IDE/EIDE and SCSI storage devices, and how to use common tools in computer repair. This course is part of the A+ Certification Program.

What you will learn

- Functions of system modules and field replaceable modules
- CPU chips, RAM, motherboards and CMOS
- IRQs, DMAs, and I/O addressing
- Peripheral ports, cabling and connectors
- Lasers
- Printer components, configurations and operations

Who should attend

This course is for those individuals who wish to prepare for the A+ Core Hardware Examination.

Course Objectives

Upon completion of this course you will be able to:

- Install and remove field replaceable modules
- Install and configure mass storage devices
- Perform basic troubleshooting and preventive maintenance procedures
- Analyze and understand environmental hazard protection and initiate disposal procedures
- Utilize and apply proper ESD (electrostatic discharge) methods
- Organize and use proper tools for troubleshooting and repair

5 Days | 3.0 CEU | Tuition \$1,595

Note: Cost of exam vouchers is included in tuition.

Schedule:

September 11-15, 2006 . . . Washington, DC
January 22-26, 2007 Washington, DC
April 23-27, 2007 Washington, DC
September 10-14, 2007 . . . Washington, DC

Graduate School, USDA online courses are instructor-led and available on the Blackboard platform. Once you register for an online course the Graduate School will e-mail you your password and the information you need to access the course. Instructors design the 8-week and 3-week courses. The same instructors will assign and evaluate projects, providing feedback to the students regarding their progress. Instruction is enhanced through interactivity and through collaboration via discussion board and e-mail. Instructors are available via e-mail to answer questions.

A+ Operating Systems (Online)

TCOM9780T

The online, instructor-led A+ Operating Systems course is designed for individuals who need formal training for the A+ Certification Program. Participants configure, install and upgrade the Windows 9x, Windows 2000 and Windows XP environments as well as manage files and directories within those systems. The loading of applications, user software and adding device drivers is integral to this course. This course is preparation for the A+ Operating Systems exam.

What you will learn

- Functions of Windows 9x, 2000, XP
- Operating systems structure and file systems
- Operating systems navigation
- Memory management
- Disk management
- Common error codes, start-up messages and icons from the boot sequence

Who should attend

Individuals who wish to prepare for the A+ Operating Systems examination in order to prepare for a career in IT as a personal computer technician.

Course Objectives

Upon completion of this course you will be able to:

- Install network components
- Manage file, disk and print resources under various Microsoft systems
- Connect to Internet and intranet resources
- Implement virus protection systems
- Prepare and recover from disaster conditions
- Install and automate client operating systems

8 Weeks | 5.0 CEU | Tuition \$995 plus course materials

Schedule:

September 5 – October 31, 2006
January 8 – March 6, 2007
March 12 – May 4, 2007
May 7 – July 2, 2007

You've got mail, and we're sending it.

Stay informed about training opportunities in your area.

Tell us where you want to take classes and which subjects you'd like to hear about. Choose plain text or HTML and update your options anytime.

Subscribe at www.grad.usda.gov/email.

A+ Operating Systems

TCOM9980T

This five-day A+ Operating Systems course is designed for those individuals who desire formal training for the A+ Certification Program. Participants configure, install and upgrade the Windows 9x, Windows 2000 and Windows XP environments as well as manage files and directories within those systems. The loading of applications, user software and adding device drivers is integral to this workshop. This course is preparation for the A+ Operating System exam.

What you will learn

- Functions of Windows 9x, 2000, XP, 2003 and NT 4.0
- Operating system structure and file systems
- Operating system navigation
- Memory management
- Disk management
- Common error codes, start-up messages and icons from the boot sequence

Who should attend

This course is designed for individuals who wish to prepare for the A+ Operating System examination to prepare for a career in IT as a personal computer technician.

Course Objectives

Upon completion of this course you will be able to:

- Install network components
- Manage file, disk and print resources under various Microsoft Systems
- Connect to Internet and intranet resources
- Implement virus protection systems
- Prepare and recover from disaster conditions
- Install and automate client operating systems

Prerequisite: A+ Core Module (TCOM9990T).

5 Days | 3.0 CEU | Tuition \$1,595

Note: Cost of exam vouchers is included in tuition.

Schedule:

September 18-22, 2006 . . . Washington, DC
January 29 – February 2, 2007
..... Washington, DC
April 30 – May 4, 2007 . . . Washington, DC
September 17-21, 2007 . . . Washington, DC

Network+ Certification (Online)

TCOM9795T

This online program covers the basic concepts of computer networking and prepares students for the Comp TIA Network+ examination, an industrywide recognition of network knowledge. Successful completion of this course and the examination constitute the basis for a career in the field of networking. The Network+ certification covers the networking technologies most commonly used today.

The benefit of a Network+ certification is that it provides a portable, industrywide recognition of professional knowledge. Certified professionals have a greater chance to qualify for a broader spectrum of positions and to achieve career promotions and professional advancement. Examination vouchers are awarded to those who have successfully completed the program.

What you will learn

- Networking basics
- Network hardware and software systems
- Data-link, network and transport layer protocols
- TCP/IP fundamentals, routing, applications and configuration
- Remote network access
- Network security

Who should attend

Individuals with A+ Certification who wish to achieve certification status in the networking field.

Course Objectives

Upon completion of this course you will be able to:

- Apply the Open Systems Interconnection (OSI) model and describe the protocols that enable networked computers to communicate
- Install network cabling topologies
- Install interface adapters, hubs, bridges, switches, gateways and routers
- Apply the necessary tools to monitor system and network performance in the major network operating
- Troubleshoot network problems, prioritize problem calls and isolate problem sources
- Utilize redundant equipment to provide fault-tolerant network communication

8 Weeks | 5.0 CEU | Tuition \$995 plus course materials

Schedule:

September 5 – October 31, 2006
March 12 – May 4, 2007
May 7 – July 2, 2007

Network+ Certification

TCOM9995T

This program covers the basic concepts of computer networking and prepares students for the COMPTIA Network+ examination. Successful completion of this course and the examination constitute the basis for a career in the field of networking. Network+ Certification covers the networking technologies most commonly used today.

The benefit of a Network+ Certification is that it provides a portable, industrywide recognition of professional knowledge. Certified professionals have a greater chance to qualify for a broader spectrum of positions and to achieve career advancements. Examination vouchers are awarded to those who have successfully completed the program.

What you will learn

- Networking basics
- Network hardware and software systems
- Data-link, network and transport layer protocols
- TCP/IP fundamentals, routing, applications and configuration
- Remote network access
- Network security

Who should attend

Individuals with A+ Certification who wish to achieve certification status in the networking field will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Understand and apply the Open Systems Interconnection (OSI) model and describe the protocols that enable networked computers to communicate
- Understand and install network cabling topologies
- Install interface adapters, hubs, bridges, switches, gateways and routers
- Apply the necessary tools to monitor system and network performance in the major network operating
- Troubleshoot network problems, prioritize problem calls and isolate problem sources
- Understand and utilize redundant equipment to provide fault-tolerant network communication

Prerequisites: A knowledge of personal computers, Windows and computer hardware. A+ certification is required prior to attending this course.

5 Days | 3.0 CEU | Tuition \$1,595

Note: Cost of exam vouchers is included in tuition.

Schedule:

August 21-25, 2006 Washington, DC
November 27 – December 1, 2006
..... Washington, DC
August 20-24, 2007 Washington, DC

Troubleshooting and Maintaining the PC, Pentium II-IV and Compatibles

DWIN9933T

In this three-day, hands-on course, students work in small groups that take apart, check and upgrade personal computers and put them back together. Participants are shown the various components of computer systems and learn the internal hardware settings that make those systems functions as reliably as possible. Utilizing instructor-led exercises, step-by-step problem solving techniques are demonstrated so that common problem areas can be quickly diagnosed and corrected.

What you will learn

- Various components of the computer
- Preventive maintenance procedures to extend the life of a computer
- Modifications of computer systems to improve computer efficiency
- The identification of problem areas within a computer system
- The identification of environmental factors which adversely affect a computer system
- Diagnostic procedures

Who should attend

This course is intended for those who wish to know more about the internal operation of their computers or to learn techniques for troubleshooting and maintenance or reducing the frequency of breakdowns. Those who want to be more effective computer users or who want to better their work skills by more fully understanding the internal operations of small computer systems will also benefit.

Course Objectives

Upon completion of this course you will be able to:

- Repair common problems on personal computer systems
- Isolate problems with disk drives, memory, peripherals and circuit boards
- Examine various types of PCs and determine differences in architecture
- Recover files, folders, FAT and directory damage on disk drives
- Check and adjust graphics display settings and improve monitor performance
- Optimize hard disk systems

Prerequisites: Basic understanding of and experience with the personal computer.

3 Days | 1.8 CEU | Tuition \$1,195

Schedule:

August 21-23, 2006 Washington, DC
 October 30 – November 1, 2006
 Washington, DC
 March 5-7, 2007 Washington, DC
 August 20-22, 2007 Washington, DC

Advanced Troubleshooting and PC Configuration

DWIN8912T

This two-day course builds on the skills and knowledge acquired in the basic PC troubleshooting course. Participants gain further exposure to more difficult problems, such as total PC malfunctions, faulty modems, memory failures, paralyzed hard drives and laser printer issues. Hands-on instruction will be provided in team situations on SCSI devices, modems, serial interfaces and CD-ROM installation procedures.

What you will learn

- Disk organizational features
- Preventive maintenance for disk drives
- Disk drive preparation concepts and drive capacity limits
- Serial devices such as joysticks, game ports, modems, mice, trackballs and fax cards
- Monitor specifications and characteristics
- Power protection issues

Who should attend

This course is intended for those who wish to broaden their knowledge of maintaining and troubleshooting the PC. A basic level of PC troubleshooting is required, so a novice should not take this course without meeting the prerequisite.

Course Objectives

Upon completion of this course you will be able to:

- Recover data from hard drives and fix hard drive problems
- Install SCSI drives
- Resolve common disk error messages
- Install and maintain fax modems
- Install and troubleshoot serial input/output devices
- Diagnose memory failures and perform memory swaps within specifications

Prerequisite: Troubleshooting and Maintaining the PC Pentium II-IV and Compatibles (DWIN9933T), or equivalent.

2 Days | 1.2 CEU | Tuition \$995

Schedule:

August 24-25, 2006 Washington, DC
 November 2-3, 2006 Washington, DC
 March 8-9, 2007 Washington, DC
 August 23-24, 2007 Washington, DC

Microsoft Windows XP: Introduction

DWIN7010T

Focus on the fundamentals of Windows XP in this one-day course. Participants navigate the Windows XP environment, working with the desktop, taskbar and icons. Hands-on activities involve processing with programs, documents, files, folders, messages and views.

What you will learn

- Program launching
- Document creation, saving and retrieval
- Editing techniques through the operating system
- File and folder organizations
- Desktop setup and maintenance
- Web browsing and other processes for tracking Web activity

Who should attend

This course is designed for any individual with interest in the foundations and usability of Microsoft Windows XP.

Course Objectives

Upon completion of this course you will be able to:

- Create, save, preview and print documents
- Cut, copy and paste information between applications
- Organize files and create folders and shortcuts
- Customize work environment and desktop by changing properties of mouse, sound and display
- Check and analyze system capacity and hard drives
- Produce information from Web sources by browsing the Web more efficiently

1 Day | 0.6 CEU | Tuition \$475

Schedule:

August 30, 2006 Washington, DC
 October 12, 2006 Washington, DC
 April 4, 2007 Washington, DC
 July 6, 2007 Washington, DC
 August 29, 2007 Washington, DC

Implementing and Supporting Microsoft Windows XP Professional

TCOM9964T

Participants in this course learn to address the implementation and desktop support needs of customers who are planning to deploy Microsoft Windows XP Professional. The course introduces the various tools for installing, configuring and administering this operating system. These tools include the Microsoft Management Console, Task Scheduler, Control Panel, Device Manager, registry editor and selected wizards. Students gain skill and knowledge that will help prepare them to take the Microsoft certification examinations.

What you will learn

- Windows XP Professional features and components
- Installation procedures
- Uses of various software tools and wizards to manage and maintain Windows XP Professional and network resources
- Backup and restore procedures
- Hard disk management
- Network and Internet configurations

Who should attend

This course is geared toward professionals responsible for system/network administration and/or those charged with implementing, upgrading or supporting Windows XP Professional. Help desk staff will also benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Install Windows XP Professional from a CD-ROM or over the network from a network share drive
- Utilize the Help and Support Center to troubleshoot Windows XP Professional
- Install and configure network protocols
- Plan, implement and manage shared folders and shared folder permissions
- Configure and troubleshoot hardware devices
- Secure resources with NTFS permissions

Prerequisite: Participant should have 6-12 months of experience administering client and network operating systems.

5 Days | 3.0 CEU | Tuition \$1,495

Schedule:

October 30 – November 3, 2006
 Washington, DC
 March 12-16, 2007 Washington, DC
 June 18-22, 2007 Washington, DC

Managing and Maintaining a Microsoft Windows Server 2003 Environment

TCOM9979T

This course provides participants with the knowledge and skills to install, configure, administer and support the primary services in the Microsoft Windows Server 2003 environment. Participants will examine basic system administrative procedures; create and manage Windows Server 2003 user, group and computer accounts, provide for shared system resources and install and maintain system hardware. This course prepares individuals for Microsoft Certification Exam 70-290.

What you will learn

- Key differences among Windows Server 2003 editions
- Logical components and concepts of Active Directory services
- Capabilities of network backup software products
- Per server and per device/user licensing models
- Differences among local, roaming, and mandatory profiles
- Differences between local user accounts and domain user accounts

Who should attend

This course is designed for IT professionals who aspire to careers as Windows Server 2003 system administrators or support technicians.

Course Objectives

Upon completion of this course you will be able to:

- Install Windows Server 2003 and create a domain controller
- Configure Task Manager to exhibit performance data and to begin and terminate applications and processes
- Backup and restore an Active Directory database
- Integrate service packs and hotfixes into a Windows Server 2003 operating system installation
- Manage disks using Check Disk, Disk Defragmenter and Disk Quotas
- Troubleshoot printer failure and device driver problems

5 Days | 3.0 CEU | Tuition \$1,395

Schedule:

November 27 – December 1, 2006
 Washington, DC
 April 23-27, 2007 Washington, DC
 July 30 – August 3, 2007 .. Washington, DC

Implementing, Managing and Maintaining a Microsoft Windows Server 2003 Network Infrastructure

TCOM9987T

This course provides participants with the knowledge and skills to successfully configure, manage and troubleshoot a Windows Server 2003 network infrastructure. The core material in this class is devoted to a full understanding of the Dynamic Host Configuration Protocol, the Domain Name System (DNS) and its different types of servers, and the components and concepts of Internet Protocol Security. This workshop helps participants prepare for Microsoft's Certification Exam 70-291.

What you will learn

- The Dynamic Host Configuration Protocol (DHCP)
- The Domain Name System (DNS) and the Windows Internet Name Services (WINS)
- The Internet Protocol Security (IPSec)
- Software Update Services
- Routing processing
- Maintenance procedures for network infrastructure

Who should attend

IT professionals wishing to pursue Microsoft certification and/or those individuals with 6-12 or more months of experience administering client and network operating systems.

Course Objectives

Upon completion of this course you will be able to:

- Configure a DHCP server by defining a scope and superscope, creating DHCP client reservation and configuring DHCP options
- Manage a DHCP database through backing up and restoring, compacting and reconciling
- Utilize management tools to configure the DNS
- Utilize the Event Log, DNS debug log and Active Directory replication to monitor and troubleshoot DNS
- Configure routing and remote access policies to prevent or deny access
- Troubleshoot connectivity to the Internet and utilize service recovery options to diagnose and resolve service-related issues

5 Days | 3.0 CEU | Tuition \$1,495

Schedule:

January 22-26, 2007 Washington, DC
 May 21-25, 2007 Washington, DC
 August 27-31, 2007 Washington, DC

UNIX System V: Introduction

COMP7891T

This five-day course provides a technical overview of the UNIX System V operating system and hardware environment. Hands-on experience using commands and files is the primary focus of this course. Through lecture and exercises, participants gain understanding and experience actual hands-on activities with UNIX in a multi-user, multitasking setting.

What you will learn

- Background on UNIX and its variants
- The system kernel
- Hierarchical file system
- Shell concepts and functions and the mail system
- Passwords and authorization levels
- UNIX editors and information processors

Who should attend

Data processing or data communications specialists, systems analysts and general IT users who need a thorough introduction to UNIX will find this course valuable.

Course Objectives

Upon completion of this course you will be able to:

- Execute programs using UNIX System V commands
- Create and manipulate files using UNIX editors
- Prepare, send and receive UNIX electronic mail
- Utilize Shell commands to control processes
- Utilize Shell operations
- Organize processes under Linux file and directory structures

Prerequisite: Familiarity and confidence with computer hardware and software concepts.

5 Days | 3.0 CEU | Tuition \$1,125

Schedule:

September 18-22, 2006 Washington, DC
March 5-9, 2007 Washington, DC
June 4-8, 2007. Washington, DC



The widely respected Cisco Career Certifications bring valuable, measurable rewards to network professionals, their managers and the organizations that employ them.

We offer two levels of certification and three paths:

General Certifications

Certification Paths	Associate	Professional
Routing and Switching	CCNA®	CCNP®
Network Security	CCNA	CCSP™
Voice	CCNA	CCVP™

As a sponsored organization of Tech 2000, Inc., the Graduate School, USDA is a Cisco Authorized Training Center. We employ Certified Cisco Systems Instructors and all participants receive exam vouchers upon completion of training. We also accept Cisco Learning Credits (CLC).

www.grad.usda.gov/cisco

Certificate of Accomplishment – A+ Certification

TCOM9985T



CompTIA A+ certification is an international industry credential that validates the knowledge of computer service technicians who have the equivalent of 500 hours of hands-on experience. Major hardware and software vendors, distributors and resellers accept CompTIA A+ as the standard in foundation-level, vendor-neutral certification for service technicians. The exams cover a broad range of hardware and software technologies but are not bound to any vendor-specific products.

The skills and knowledge measured by the CompTIA A+ exams were derived from an industrywide and worldwide job task analysis. Earning CompTIA A+ certification proves that a candidate has a broad base of knowledge and competency in core hardware and operating systems technologies, including installation, configuration, diagnosing, preventive maintenance and basic networking.

Upon completion of the program, participants have the required knowledge to prepare and take the A+ Certification exams. Examination vouchers are awarded to participants who have successfully completed the program.

Two exams required:

- A+ Core Hardware
- A+ Operating Systems Technologies

What you will learn

- List Windows and command-line tools
- Manage applications
- Install network components
- Implement local security in Windows 2000/NT/XP
- Manage file and print resources in Windows 2000/NT/XP
- Manage file and print resources in Windows 98
- Manage disk resources in Windows 2000/NT/XP
- Manage disk resources in Windows 98
- Connect to Internet and intranet resources
- Implement virus protection
- Prepare for disaster recovery
- Recover from disaster
- Install client operating systems
- Automate client operating system installations

Who should attend

This course is for individuals who wish to prepare for the A+ Core Hardware examination and A+ Operating Systems examination.

Course Objectives

Upon completion of this course you will be able to:

- Install and remove field replacement modules
- Install and configure mass storage devices
- Perform basic troubleshooting and preventive maintenance procedures
- Analyze and understand environmental hazard protection and initiate disposal procedures
- Utilize and apply proper electrostatic discharge (ESD) methods
- Organize and use proper tools for troubleshooting and repair
- Install network components
- Manage file, disk and print resources under various Microsoft systems
- Connect to Internet and intranet resources
- Implement virus protection systems
- Prepare and recover from disaster conditions
- Install and automate client operating systems

2 Weeks | 6.0 CEU | Tuition \$2,995

Note: Cost of exam vouchers is included in tuition.

Schedule:

September 11-22, 2006 Washington, DC
January 22 – February 2, 2007 . . Washington, DC
April 23 – May 4, 2007 Washington, DC
September 10-21, 2007 Washington, DC



Microsoft Certified Desktop Support Technician (MCDST) Certificate

TCOM8980T

The Microsoft Certified Desktop Support Technician (MCDST) credential proves that an individual has the skills to successfully support end users and troubleshoot desktop environments running on the Microsoft Windows operating system. MCDST candidates are required to pass two core examinations. This designation provides industry recognition of knowledge and proficiency with Microsoft products and technologies.

The MCDST certification covers the skills of help-desk technicians, customer support representatives, PC support specialists, technical support representatives and technical support specialists. Two courses are required to complete the certificate process: Supporting Users Running the Microsoft Windows XP Operating System and Supporting Users Running Applications on a Microsoft Windows XP Operating System.

Supporting Users Running the Microsoft Windows XP Operating System

The first three days provide individuals who are new to Microsoft Windows XP with the knowledge and skills necessary to troubleshoot basic problems users will face while running Microsoft Windows XP Professional in an Active Directory network environment or Windows XP Home edition in a workgroup environment. The course is designed to provide an overview of operating system concepts and how to troubleshoot Windows XP.

Supporting Users running Applications on a Microsoft Windows XP Operating System

In the remaining two days, participants acquire the knowledge and skills necessary to troubleshoot basic user problems related to configuring and maintaining applications such as Microsoft Office, Outlook Express, Internet Explorer and others that run on a Microsoft Windows XP Operating System.

What you will learn

- Installation and configuration procedures for the Windows XP system
- Upgrading issues from previous versions of Windows
- System start-up and log-on problems
- Security settings and local security policies for a system
- Problems associated with the TCP/IP protocol
- Device and driver problem areas
- Issues relating to end user systems utilizing Remote Desktop and Remote Assistance
- How to troubleshoot application installation problems
- Application compatibility settings
- File system access and file permission problems on multi-boot computers

- Issues related to the usability of applications
- Application security issues
- Issues relating to the customization of the operating system

Who should attend

This certification course is intended for individuals in the support/help desk environments who wish to obtain industry recognition of proficiencies.

Course Objectives

Upon completion of this course you will be able to:

- Perform and troubleshoot both an attended installation of the Windows XP operating system and a post-installation configuration of that system
- Monitor and analyze system performance
- Troubleshoot connecting to local and network print devices
- Configure and troubleshoot hardware devices and drivers, storage devices, display devices, local user and group accounts and Internet Connection Firewall (ICF) settings
- Configure support for multiple languages or multiple locations
- Troubleshoot network protocols
- Monitor, manage and troubleshoot access to files and folders
- Troubleshoot application installation problems
- Configure and troubleshoot e-mail account configurations
- Manage Microsoft Outlook data, including configuring, importing and exporting data and fixing corrupted data
- Configure, troubleshoot and resolve issues concerning Internet Explorer and Outlook Express
- Identify and troubleshoot problems related to security permissions and application security settings
- Configure and troubleshoot connectivity for applications

Prerequisite: An MCDST candidate should have six months of experience working with a desktop operating system.

5 Days | 3.0 CEU | Tuition \$1,465

Note: Cost of exam vouchers is included in tuition.

Schedule:

July 10-14, 2006 Washington, DC
 September 25-29, 2006 Washington, DC
 February 5-9, 2007 Washington, DC
 May 14-18, 2007 Washington, DC
 September 17-21, 2007 Washington, DC

AUTHORIZED CISCO TRAINING

The Graduate School, USDA delivers authorized Cisco® training as a Sponsored Organization of Tech 2000, Inc., a Cisco Learning Solutions Partner.

CCNA, CCNP, CCSP, CCVP, PIX, Cisco, Cisco IOS, Cisco Systems, the Cisco Systems logo, and Networking Academy are registered trademarks or trademarks of Cisco Systems, Inc., and/or its affiliates in the U.S. and certain other countries. All other trademarks mentioned in this catalog are the property of their respective owners.

Introduction to Cisco Networking Technologies (INTRO)

NEW

TCOM7415T

Introduction to Cisco Networking Technologies (INTRO) is recommended training for individuals seeking an understanding and knowledge of networking fundamentals including the Open Systems Interconnect (OSI) seven-layer model concepts; terminology and technologies. The course also provides learners with the basic skills and knowledge to configure a Cisco IOS router for network connectivity. It is recommended training for individuals seeking certification as a CCNA.

Prerequisites: Basic computer literacy, basic knowledge of PC hardware configurations and basic understanding of networking business drivers.

Who should attend

Employees, channel partners/resellers and customers will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Classify devices and functions by their layer in the OSI model and the purpose, use, structure, and definitions of the layers of the OSI model
- Choose the appropriate data communications transmission method (serial/parallel) and explain how encapsulation and de-encapsulation works for that transmission method
- Construct a point-to-point Ethernet LAN
- Show the sequence of steps used by IP Protocol operations to determine addresses
- Match issues related to increasing traffic on an Ethernet LAN to typical LAN environment
- Solve Ethernet networking issues using switched LAN technology
- Identify the specific Ethernet network interface (e.g., E0, EI) by which a packet is forwarded on an Ethernet LAN
- Construct a topology and network addressing scheme
- Determine the type of transport protocol (TCP or UDP) and IP application used
- Define the fundamental technologies involved in a WAN environment
- Match the types of WAN media to their appropriate characteristics
- Use the available configuration tools to establish connectivity to the appropriate network device in order to complete the initial device configuration

4 Days | 2.4 CEU | Tuition \$1,895

Schedule:

August 21-24, 2006 Washington, DC
November 27-30, 2006 Washington, DC
April 16-19, 2007 Washington, DC
June 18-21, 2007 Washington, DC

Interconnecting Cisco Networking Devices (ICND)

NEW

TCOM8415T

Interconnecting Cisco Network Devices (ICND) is an instructor-led course presented by Cisco Systems, Inc., training partners to their end-user customers. This five-day course focuses on using Cisco Catalyst switches and Cisco routers connected in local-area networks (LANs) and wide-area networks (WANs) typically found at small to medium network sites. Upon completion of this training course, students will be able to select, connect, configure, and troubleshoot the various Cisco networking devices. ICND is recommended training for individuals seeking certification as a CCNA.

Who should attend

Employees, channel partners/resellers and customers will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Configure a Catalyst switch for basic operations, given a need for plug-and-play operation
- Configure and troubleshoot Virtual LANs (VLANs), given an operational access layer switch
- Configure and troubleshoot Routing Information Protocol (RIP), Interior Gateway Routing Protocol (IGRP), Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF), given operational routers
- Configure IP access lists, given a functioning router
- Configure serial interfaces using PPP and High-Level Data Link Control (HDLC), given a functioning router
- Configure Frame Relay, given functioning Cisco routers
- Configure DDR between two routers with Basic Rate interface (BRI) or Primary Rate Interface (PRI), given a functioning remote access router and a physical ISDN connection

Prerequisite: Introduction to Cisco Networking Technologies (INTRO) (TCOM7415T).

5 Days | 3.0 CEU | Tuition \$2,395

Schedule:

October 23-27, 2006 Washington, DC
February 26 – March 2, 2007 Washington, DC
August 27-31, 2007 Washington, DC

Cisco Boot Camp

NEW

TCOM8615T

The CCNA certification (Cisco Certified Network Associate) indicates a foundation in and apprentice knowledge of networking. CCNA certified professionals can install, configure and operate LAN, WAN and dial access services for small networks (100 nodes or fewer), including but not limited to use of these protocols: IP, IGRP, Serial, Frame Relay, IP RIP, VLANs, RIP, Ethernet and Access Lists.

Who should attend

Individuals who possess a general networking background, have prior experience with Cisco IOS and are seeking CCNA certification should consider this class as the quickest way to meet the requirements of the CCNA.

Course Objectives

Upon completion of this course you will be able to:

- Given a fully operational internetwork, interconnecting end systems using Cisco systems routers and switches, administrative access to the network and access to Cisco IOS commands and applications that are used to discover baseline configuration information, students will establish a baseline so that the topology and configuration is diagrammed and tabulated
- Given interconnecting end systems using Cisco systems routers and switches, and the principles of a layered model troubleshooting approach, students will determine and document a troubleshooting strategy so that internetwork problems can be detected and corrected consistently
- Given the suboptimal operation of an internetwork at the physical or data link layer, a list of user-reported symptoms and a network baseline, students will use Cisco IOS commands and applications to resolve optimization and failure problems at the physical or data link layer so that the framed data moves from one end of a data link to another at the expected data error rate determined in the network baseline

- Given the suboptimal operation of an internetwork at the network layer, a network baseline and a list of user-reported and system-gathered symptoms, students will use Cisco IOS commands and applications to resolve optimization and failure problems at the network layer, so that students can verify connectivity at Layer 3, the routing tables show reachability to all expected network devices specified in the baseline and traffic is flowing over the correct path detailed in the baseline

Prerequisites: The CCNA Boot Camp is an intense training program. Students should be very familiar with networking topics such as TCP/IP, IP configuration, peer-to-peer networking, subnetting, building a routing table and other network protocols, standards and architecture.

5 Days | 3.5 CEU | Tuition \$2,795

Schedule:

July 24-28, 2006 Washington, DC
January 8-12, 2007 Washington, DC
May 21-25, 2007 Washington, DC
July 23-27, 2007 Washington, DC

Rest assured.

When you register online, your credit card and registration information cannot be viewed by unauthorized individuals.

www.grad.usda.gov

Building Scalable Cisco Internetworks (BSCI)

NEW

TCOM7515T

The BSCI 2.1 course is recommended training for individuals seeking certification as a Cisco Certified Network Professional (CCNP). BSCI 2.1 instructs network administrators of medium-to-large network sites on the use of advanced IP addressing and routing in implementing scalability for Cisco routers connected to LANs and WANs. The goal is to train network administrators to grow a dramatically increased number of routers/sites using these techniques instead of redesigning the network when additional sites or wiring configurations are added. The course contains seven modules and 16 main lab exercises.

Who should attend

System engineers, employees, customers, tech support and network administrators seeking certification will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Describe advanced IP addressing to include variable-length subnet mask, route summarization, classless interdomain routing (CIDR), basic IP version 6 and using Network Address Translation (NAT) with route maps
- Identify advanced IP routing principles, including static and dynamic routing characteristics and the concepts of classless routing and network boundary summarization
- Configure Enhanced Interior Gateway Routing Protocol (EIGRP) for a scalable network
- Configure Open Shortest Path First (OSPF) for a scalable multiarea network
- Configure Intermediate System-to-Intermediate System (IS-IS) for a scalable multiarea network
- Manipulate routing updates and packet flow using redistribution, distribution lists, administrative distance, route maps and policy-based routing
- Configure basic Border Gateway Protocol (BGP) for internal and external Border Gateway Protocol connections

Prerequisites: To fully benefit from this course, the BSCI v2.1 student typically will have attended the Cisco CCNA curriculum and passed the CCNA certification test. Successful students must have the following skills and knowledge to be at a level appropriate for entering BSCI v2.1:

- Networking terms, numbering schemes and topologies
- Open System Interconnection (OSI) reference model
- Operating and configuring a Cisco router
- TCP/IP stack and configuring IP addresses
- IP subnetting to include complex subnetting and variable-length subnet masking (VLSM)
- Routing protocol operation and configuration for using, implementing and configuring static and default routes
- Interpreting the contents, entries and indicators from a Cisco routing table
- Filtering traffic with standard and extended access lists
- Verifying basic router configurations using show and debug command output
- Verifying basic switch configurations using show command output
- Configuring a WAN serial interface using High-Level Data Link Control (HDLC) and Point-to-Point Protocol (PPP)
- Configuring a WAN serial interface using Frame Relay permanent virtual circuits (PVCs) and subinterfaces

5 Days | 3.0 CEU | Tuition \$2,695

Schedule:

July 10-14, 2006 Washington, DC
January 22-26, 2007 Washington, DC
July 9-13, 2007 Washington, DC

Building Cisco Multilayer Switched Networks (BCMSN)

NEW

TCOM7516T

Building Cisco Multilayer Switched Networks (BCMSN) v2.1 is recommended training for individuals seeking certification as Cisco CCNP. This course enables learners to use appropriate technologies to build scalable multilayer switched networks, to create and deploy a global intranet, and to implement basic troubleshooting techniques in environments that use Cisco multilayer switches for client hosts and services. This course also enables learners to improve traffic flow, reliability, redundancy and performance for LAN switching that is self-supported or transported via a service provider. The purpose of this course is to enable a learner to achieve a mid-career professional-level competency.

Who should attend

System engineers, account managers, channel partners/resellers and customers.

The primary audiences for Building Cisco Multilayer Switched Networks are network administrators and technicians who are responsible for implementing or troubleshooting a multilayer switched network in an enterprise environment, CCNP and CCDP candidates, and CCIE routing/switching candidates.

Course Objectives

Upon completion of this course you will be able to:

- Deploy the required Cisco products and services that enable connectivity and traffic transport, given a network design that includes multilayer switching over various Ethernet technologies
- Implement the necessary services at each layer of the network to all users to obtain services in a working multilayer switched network
- Control network traffic by implementing network policies, given, a working multilayer switched network
- Restore proper network operations through the use of Cisco devices and external management tools, when presented with an incorrectly working multilayer switched network
- Explain how service providers implement transparent LAN services and Ethernet over Multiprotocol Label Switching (MPLS) technology to deliver connectivity to the enterprise site

Prerequisites: The knowledge and skills a learner must have before attending this course include:

- Basic router configuration
- Basic switch configuration
- Basic virtual local area network (VLAN) configuration
- Basic Spanning Tree Protocol (STP) configuration
- Basic trunking configuration
- Standard access list configuration
- Standard access list configuration

Note: The prerequisite topics are covered in the Interconnecting Cisco Network Devices (ICND) v2.1 course. It is recommended that a student achieve Cisco Certified Network Associate (CCNA) prior to taking this course.

5 Days | 3.0 CEU | Tuition \$2,695

Schedule:

July 17-21, 2006 Washington, DC
 November 13-17, 2006 Washington, DC
 April 9-13, 2007 Washington, DC
 July 16-20, 2007 Washington, DC

Building Cisco Remote Access Networks (BCRAN)

NEW

TCOM7517T

BCRAN is an advanced course that introduces techniques and features enabling or enhancing WAN and remote access solutions. The course focuses on using one or more of the available WAN dialup or permanent connection technologies for remote access between enterprise sites.

This course includes aux port modem connections for out-of-band management, PPP LCP features, cable modems and DSL with NAT, network security using VPNs with IPSec encryption and IKE keys, ISDN (BRI and PRI), DDR, Frame Relay including sub-interface and traffic shaping, dial backup, QOS using queuing and compression, and AAA.

Who should attend

Channel partners/resellers, customers and employees.

Course Objectives

Upon completion of this course you will be able to:

- Identify WAN technologies and components
- Configure PPP features (CHAP, MLP, Call-back)
- Describe broadband then configure DSL and address translation
- Describe Virtual Private Nets and configure IPSec
- Configure ISDN with legacy DDR
- Optimize use of Dialer interfaces
- Configure Frame Relay with traffic shaping
- Set up Dialer Profiles and DDR backup
- Identify QOS and configure WAN-edge queuing
- Use AAA to scale access controls

Prerequisites: To be ready to learn from BCRAN, you should already possess certain prerequisite knowledge and skills. These typically come from Cisco Certified Network Associate (CCNA) self-paced or instructor-led education, exposure to production networks and networking job experience. Specific technical content to prepare for this course is in Cisco's INTRO and ICND courses.

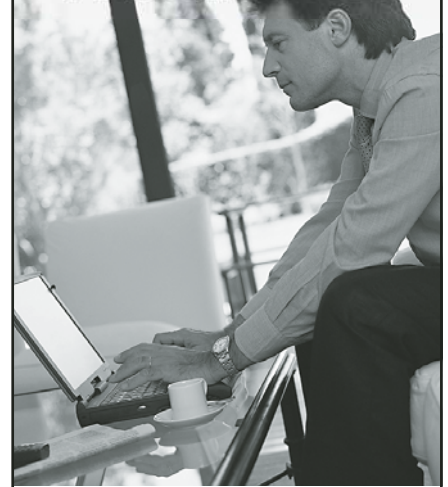
BCRAN is part of the recommended learning path for students seeking the Cisco Certified Network Professional (CCNP).

5 Days | 3.0 CEU | Tuition \$2,695

Schedule:

September 25-29, 2006 Washington, DC
 February 5-9, 2007 Washington, DC
 July 23-27, 2007 Washington, DC

No time for a classroom?



The Graduate School is responding to the changing needs of today's students with more distance education courses.

Our most popular offerings are now available online: All courses are instructor-led and use state-of-the-art delivery methods including Blackboard and Centra software. Highly experienced faculty members design the content to exceed your expectations and position you for greater career mobility.

Courses offered include:

- Microsoft Office applications
- A+, Network+ and Security+
- Information assurance courses from the Capitol College Master of Science in Network Security

Because of our continually evolving distance education program, we anticipate a broad range of new offerings throughout the year. Please check our Web site frequently for courses that will meet your continuing education needs:

www.grad.usda.gov/onlineit

Cisco Internetwork Troubleshooting (CIT) NEW

TCOM8515T

The goal of CIT is to provide learners with hands-on experience in troubleshooting sub-optimal performance in a converged network and is an integral part of any approach to obtain the technical proficiency of Cisco Certified Network Professional (CCNP). CIT deepens the learners' technical ability rather than introducing new baseline technology.

Who should attend

System engineers, channel partners/resellers, customers and Cisco employees.

CIT provides advanced training for senior-level network support professionals. The target audience is expected to be highly educated, with a background in engineering. They tend to be well organized, logical and thoughtful. Many among the target audience will be self-directed learners, researching topics to answer their own question. Their intellectual curiosity, coupled with their ability to evaluate information for relevance, completeness and accuracy, could lead to situations where learners race ahead of the instructor's presentation in the classroom.

Course Objectives

Upon completion of this course you will be able to:

- Given a fully operational internetwork, interconnecting end systems using Cisco systems routers and switches, administrative access to the network, and access to Cisco IOS commands and applications that are used to discover baseline configuration information, students will establish a baseline so that the topology and configuration is diagrammed and tabulated
- Given interconnecting end systems using Cisco systems routers and switches, and the principles of a layered model troubleshooting approach, students will determine and document a troubleshooting strategy so that internetwork problems can be detected and corrected consistently

- Given the suboptimal operation of an internetwork at the physical or data link layer, a list of user-reported symptoms and a network baseline, students will use Cisco IOS commands and applications to resolve optimization and failure problems at the physical or data link layer so that the framed data moves from one end of a data link to another at the expected data error rate determined in the network baseline
- Given the suboptimal operation of an internetwork at the network layer, a network baseline and a list of user-reported and system-gathered symptoms, students will use Cisco IOS commands and applications to resolve optimization and failure problems at the network layer, so that students can verify connectivity at Layer 3, the routing tables show reachability to all expected network devices specified in the baseline and traffic is flowing over the correct path detailed in the baseline

Prerequisites: Successful completion of the following courses, or equivalent field experience:

- ICND
- BCMSN
- BCRAN

5 Days | 3.0 CEU | Tuition \$2,695

Schedule:

July 31 – August 4, 2006 . . . Washington, DC
February 12-16, 2007 Washington, DC
July 30 – August 3, 2007 . . . Washington, DC

Securing Cisco Network Devices (SND) v1.0 NEW

TCOM9931T

This five-day, entry-level network security course is offered as a prerequisite to the Cisco Qualified Specialist curriculum. SND provides an opportunity to learn about a broad range of the components embedded in Cisco SAFE. Students will recognize threats and vulnerabilities to networks and learn how to implement basic mitigation measures. The course provides an introduction to the Cisco products and solutions that form the basis of the Cisco security portfolio. Students will be able to perform basic tasks to secure network devices at Layers 2 and 3 using command line interface and Web-based GUIs. Devices include routers, switches, access control servers, IPS sensors and VPN Concentrators.

Who should attend

Network Professionals who require the basic knowledge and skills needed to deploy Cisco security solutions including VPN, IDS Sensors and PIX Firewalls.

Prerequisites: Students who attend this course must have experience in configuring Cisco IOS software and have met the following prerequisites:

- Certification as a CCNA or the equivalent knowledge
- Basic knowledge of the Windows operating system
- Familiarity with networking and security terms and concepts
- Describe Cisco SAFE, Cisco's security portfolio, and Cisco's VPN Management suite
- Configure Layer 2 and 3 devices on the network perimeter with CatOS and Cisco IOS security features
- Secure a network with the Cisco PIX Security Appliance
- Provide security connectivity to a network with IPSec VPN technology
- Secure networks with host- and network-based intrusion prevention systems (IPS)
- Complete basic network security configuration and administrative tasks using Cisco Secure Access Control Server (ACS) for Windows Server
- Manage network security with CiscoWorks VPN/Security Management Solution (VMS)

5 Days | 3.0 CEU | Tuition \$2,795

Schedule:

August 7-11, 2006 Washington, DC
February 26 – March 2, 2007 Washington, DC
May 7-11, 2007 Washington, DC

Securing Networks with PIX and ASA (SNPA) v4.0

TCOM9933T

The SNPA course is a five-day, instructor-led, lab-intensive course. The course takes a task-oriented approach to teaching the skills to configure, operate, and manage Cisco PIX 500 Series Security Appliances and Cisco ASA 5500 Series Adaptive Security Appliances.

Course Objectives

Upon completion of this course you will be able to:

- Discuss Adaptive Security Algorithm (ASA) and ASA security levels
- Configure the Security Appliance to send syslog messages to a syslog server
- Configure and explain the function of ACLs and NAT 0 ACLs
- Configure active code filtering (ActiveX and Java applets)
- Configure the Security Appliance for URL filtering
- Define and configure cut-through proxy authentication and tunnel access authentication
- Describe how the Security Appliance implements FTP and HTTP protocol inspection
- Describe how the Security Appliance implements remote shell (rsh), SQL, SMTP, ICMP and SNMP protocol inspection
- Identify the tasks and commands to configure Security Appliance IPSec support
- Describe and configure the Easy VPN Server and Remote using the Cisco VPN Client
- Install ASDM and use it to configure the Security Appliance
- Configure a security policy on an ASA Security Appliance using ASDM
- Use TFTP to install and upgrade the software image on the Security Appliance

Who should attend

Cisco customers who implement and maintain PIX Security Appliance and ASA Security Appliances; Cisco channel partners who sell, implement and maintain PIX Security Appliance and ASA Security Appliances; and Cisco systems engineers who support the sale of PIX Security Appliance and ASA Security Appliances.

Prerequisites: Students who attend this advanced course must have experience in configuring Cisco IOS software and have met the following prerequisites:

- Certification as a CCNA or the equivalent knowledge
- Basic knowledge of the Windows operating system
- Familiarity with the networking and security terms and concepts (the concepts are learned in prerequisite training or by reading industry publications)

5 Days | 3.0 CEU | Tuition \$2,795

Schedule:

August 14-18, 2006 Washington, DC
March 5-9, 2007 Washington, DC
May 14-18, 2007 Washington, DC

**Now at the
Graduate School, USDA**



CompTIA® Certification Training

The Graduate School offers CompTIA® Certification training to help you achieve some of the leading industry-wide, vendor-neutral certifications!

CompTIA A+

This training prepares you for certification as an entry-level PC technician. A+ certification provides the perfect entry into an IT career.

CompTIA Network+

The international industry credential that validates the knowledge of network professionals with at least nine months of experience. A+ Certification or equivalent knowledge is a prerequisite.

Learn in our state-of-the-art classrooms or train online with instructor support via Blackboard.

Securing Networks Using Cisco Routers and Switches (SNRS) v1.0

NEW

TCOM9932T

Previously named SECUR v1.1 SNRS 1.0, this 5-day, instructor-led, lab-intensive course, will be delivered by Cisco Learning Partners (CLPs). This course is aimed at providing network specialists with the knowledge and skills needed to secure Cisco IOS router and switch networks. Successful graduates will be able to secure the network environment using existing Cisco IOS and CatOS security features, configure the three primary components of the Cisco IOS Firewall Feature set (context-based access control (CBAC), intrusion prevention and authentication proxy), implement secure tunnels (VPNs) using IPSec technology; and implement basic access switch security. In addition, they will complete a security audit using functions embedded in Cisco Security Device Manager.

Course Objectives

Upon completion of this course you will be able to:

- Describe Cisco SAFE, Cisco's security portfolio, and Cisco's VPN Management suite
- Configure Layer 2 and 3 devices on the network perimeter with CatOS and Cisco IOS security features
- Secure a network with the Cisco PIX Security Appliance
- Provide security connectivity to a network with IPSec VPN technology
- Secure networks with host- and network-based intrusion prevention systems (IPS)
- Complete basic network security configuration and administrative tasks using Cisco Secure Access Control Server (ACS) for Windows Server
- Manage network security with CiscoWorks VPN/Security Management Solution (VMS)

Who should attend

Network professionals who require the basic knowledge and skills needed to deploy Cisco security solutions including VPN, IDS Sensors and PIX Firewalls.

Prerequisites: Students who attend this advanced course must have experience in configuring Cisco IOS software and have met the following prerequisites:

- Certification as a CCNA or the equivalent knowledge
- Basic knowledge of the Windows operating system
- Familiarity with the networking and security terms and concepts (the concepts are learned in prerequisite training or by reading industry publications)

5 Days | 3.0 CEU | Tuition \$2,795

Schedule:

September 11-15, 2006 Washington, DC
March 26-30, 2007 Washington, DC
June 4-8, 2007. Washington, DC

Implementing Cisco Intrusion Prevention System (IPS) V5.0

NEW

TCOM9934T

Given an example of Cisco's defense in depth, the learner will explain how Cisco IPS protects network devices from attacks. Given an IPS sensor appliance, the learner will install the appliance in the network and initialize it. You use IDM to configure basic sensor settings and to configure built-in signatures to meet the requirements of a given security policy. You will describe the functions of signature engines and their parameters. You will use IDM to tune and create signatures to meet the requirements of a given security policy. Given a scenario, you will use IDM to tune a sensor to work optimally in the network. Given a scenario, you will use the Monitoring Center for Security and Cisco Threat Response to maximize alarm management efficiency. You will explain blocking concepts and use IDM to configure blocking for a given scenario. You will install the NM-CIDS in a router and initialize it. You will install the module in a Cisco Catalyst 6500 Switch and initialize it. You will use a Cisco Catalyst 6500 Switch to capture network traffic for intrusion prevention analysis. You will install and recover the sensor software image and perform service pack and signature updates. The learner will use the CLI and IDM to verify system configuration.

Who should attend

Internetwork professionals who want to ensure security on their network or who seek Cisco certification.

Course Objectives

Upon completion of this course you will be able to:

- Describe the basic intrusion prevention terminology
- Explain the different intrusion prevention technologies and evasive techniques
- Design a Cisco IPS solution for small, medium, and enterprise customers
- Identify the Cisco IPS Sensor platforms and describe their features
- Install and configure a Cisco IPS Sensor
- Tune Cisco IPS signatures to work optimally in unique network environments
- Create and implement customized intrusion prevention signatures
- Create alarm exceptions to reduce alarms and possible false positives
- Configure a Cisco IPS Sensor to perform device management of supported blocking devices
- Describe the Cisco IPS signatures and determine the immediate threat posed to the network
- Perform maintenance operations such as signature updates and software upgrades
- Describe the Cisco IPS architecture including supporting services and configuration files

Prerequisites: Students who attend this advanced course must have experience in configuring Cisco IOS software and have met the following prerequisites:

- Certification as a CCNA or the equivalent knowledge
- Basic knowledge of the Windows operating system
- Familiarity with the networking and security terms and concepts (the concepts are learned in prerequisite training or by reading industry publications)

5 Days | 3.0 CEU | Tuition \$2,795

Schedule:

August 21-25, 2006 Washington, DC
 March 12-16, 2007 Washington, DC
 May 21-25, 2007 Washington, DC

Cisco Secure Virtual Private Networks (CSVPN)

NEW

TCOM9418T

CSVPN 4.0 is a four-day, instructor-led, lab-intensive course, which will be delivered by Cisco Learning Partners (CLPs). This task-oriented course teaches the knowledge and skills needed to describe, configure, verify and manage the Cisco VPN 3000 Concentrator, Cisco VPN Software Client and Cisco VPN 3002 Hardware Client feature set.

Who should attend

- System engineers, channel partners/resellers and customers
- Cisco customers who implement and maintain Cisco Virtual Private Networks (VPNs)
- Cisco Channel Partners who sell, implement and maintain Cisco VPNs
- Cisco Systems engineers who support the sales of Cisco VPN product solutions

Course Objectives

Upon completion of this course you will be able to:

- Describe the features, functions and benefits of Cisco VPN products
- Explain the IPSec and IKE component technologies that are implemented in Cisco Secure VPN products
- Install and configure the Cisco IPSec VPN Software client
- Configure Cisco VPN 3000 for remote access using pre-shared keys
- Configure Cisco VPN 3000 for remote access using digital certificates
- Configure Cisco VPN 3000 firewall feature
- Configure Cisco VPN Windows Client auto-initiate feature

Prerequisites: Students who attend this advanced course must have experience in configuring Cisco IOS software and have met the following prerequisites:

- Certification as a CCNA or the equivalent knowledge (optional)
- Basic knowledge of the Windows operating system
- Familiarity with the networking and security terms and concepts (the concepts are learned in prerequisite training or by reading industry publications).

4 Days | 2.4 CEU | Tuition \$2,795

Schedule:

August 28-31, 2006 Washington, DC
 March 19-22, 2007 Washington, DC
 May 29 – June 1, 2007 Washington, DC
 August 27-30, 2007 Washington, DC

Location, Location, Location.



The Graduate School is conveniently located in Capital Gallery at 600 Maryland Avenue S.W. near the L'Enfant Plaza Metro station, 7th Street and Maryland Avenue exit. You can reach us via the Yellow, Green, Orange or Blue lines. Parking is available in the building and in nearby garages.

Implementing Cisco Quality of Service (QoS)

NEW

TCOM8915T

The Implementing Cisco Quality of Service (QoS) v2.1 course provides students with in-depth knowledge of IP QoS requirements, conceptual models using Differentiated Services (DiffServ), Integrated Services (IntServ) and Best Effort (over provisioning), and the implementation of IP QoS on Cisco IOS switch and router platforms.

The curriculum covers the theory of IP QoS, design issues, and configuration of various QoS mechanisms to facilitate the creation of effective administrative policies providing QoS. Case studies and lab exercises included in the course help students to apply the concepts mastered in individual modules to real-life scenarios.

The course also gives students design and usage rules for various advanced IP QoS features and the integration of IP QoS with underlying Layer 2 QoS mechanisms, allowing them to design and implement efficient, optimized and trouble-free multiservice networks.

Who should attend

Channel partners/resellers and customers.

Course Objectives

Upon completion of this course you will be able to:

- Given a converged network, explain the need to implement Quality of Service (QoS) and explain methods for implementing and managing QoS
- Given a converged network, identify and describe different models used for ensuring QoS in a network, and explain key IP QoS mechanisms used to implement the models
- Given a converged network, explain the use of MQC and AutoQoS to implement QoS on the network
- Given a converged network and a policy defining QoS requirements, successfully classify and mark network traffic to implement the policy
- Given a congested network, use Cisco QoS queuing mechanisms to manage network congestion
- Given a converged network, use Cisco QoS congestion avoidance mechanisms to reduce the effects of congestion on the network
- Given a network, use Cisco QoS traffic policing and traffic shaping mechanisms to effectively limit the rate of network traffic

Prerequisites: Completion of Interconnecting Cisco Networking Devices (ICND) or Cisco Certified Networking Associate (CCNA). The Configuring BGP on Cisco Routers course (BGP) or equivalent is recommended because some BGP background is assumed for the QoS course.

5 Days | 3.0 CEU | Tuition \$2,795

Schedule:

August 7-11, 2006 Washington, DC
January 29 – February 2, 2007
. Washington, DC
April 16-20, 2007 Washington, DC
August 6-10, 2007 Washington, DC

Cisco Voice Over IP (CVOICE)

NEW

TCOM8916T

CVOICE 4.2 is the first course in the Cisco Voice Professional Curriculum, a curriculum track that starts at the basics of packetized voice and builds up to a true voice professional level. CVOICE lays the foundation for gaining hand-on skills and significant understanding of packet telephony by presenting the technologies that are common for both Enterprise and Service Provider students. The course also teaches students how to use the available Cisco tools to find the information needed to accomplish their everyday tasks. Since no two networks are alike, this approach enables a student to apply the knowledge gained in this course to their specific needs.

Who should attend

System engineers, channel partners/resellers and customers.

Course Objectives

Upon completion of this course you will be able to:

- Identify the components, processes and features of traditional telephony networks that provide end-to-end call functionality
- Describe two methods of call control used on voice and data networks and provide one example of a protocol for each
- List at least five components or capabilities that are required to provide integrated voice and data services in campus LAN, enterprise and service provider environments
- Select the appropriate analog voice connection to a Cisco device given the types of analog connections and their susceptibility to line quality problems
- Choose a voice compression scheme that best suits your needs given the fundamentals of digital voice
- Describe the appropriate signaling method to deploy in a telephony system given the type of signaling: between PBXs; between PBXs and central offices; or specialized, such as ISDN
- Implement an effective method of transporting fax and modem traffic over a Voice over IP network given the standard implementations of fax and the methods used to transport modem traffic

Prerequisites: To fully comprehend the concepts and technologies taught in this course, a working knowledge of LANs, WANs and IP switching and routing is essential. Basic internetworking skills taught in the Interconnecting Cisco Network Devices training course, or equivalent knowledge, is considered the minimum knowledge needed for this course. Although this is a packetized voice course, knowledge of the how and whys of the traditional PSTN operations and technologies is required.

5 Days | 3.0 CEU | Tuition \$2,595

Schedule:

October 23-27, 2006 Washington, DC
February 5-9, 2007 Washington, DC
August 13-17, 2007 Washington, DC

IP Telephony Troubleshooting (IPTT)

NEW

TCOM8917T

IPTT v4.0 practices troubleshooting skills for administrators and engineers who support IP Telephony installations. IPTT prepares for one of the exams required for the IP Telephony Operations Specialization and Certification. The course revision number is skipping from v2.0 to v4.0 to acknowledge that both the Unity and the Call Manager software used in the course are revisions 4.

Changes to the course are:

- Module and Lesson Objectives have been refined to focus on troubleshooting knowledge and skills.
- The modules on troubleshooting signaling problems have been redesigned for instructional effect.
- Labs have been updated and converted to practice IPT-specific troubleshooting skills.
- Topics and Labs have been refined to emphasize the most recent level 1 and 2 support issues experienced with IP Telephony support.
- The lab topology has been updated.

Who should attend

Employees, channel partners/reseller, and customers, CCNA, QOS or DQOS. Also recommended: CVOICE.

Course Objectives

Upon completion of this course you will be able to:

- Apply effective troubleshooting methods to resolve issues in complex IPT networks
- Troubleshoot common Call Manager configuration, integration, and operation problems
- Troubleshoot Cisco and Microsoft AVVID components using the appropriate utilities and management tools
- Troubleshoot common router, switch and gateway configuration; integration and operation issues and problems in AVVID networks
- Resolve QoS issues in complex IPT networks using effective and appropriate troubleshooting and implementation methods
- Troubleshoot common Unity configuration, integration and operation issues and problems
- Employ Cisco TAC as a troubleshooting and escalation tool

5 Days | 3.0 CEU | Tuition \$2,795

Schedule:

August 21-25, 2006 Washington, DC
October 30 – November 3, 2006
. Washington, DC
April 30 – May 4, 2007 Washington, DC
August 20-24, 2007 Washington, DC

Cisco IP Telephony Part 1 (CIPT1)

NEW

TCOM8918T

Cisco IP Telephony Part 1 (CIPT1) v4.0 prepares you for installing, configuring and maintaining a Cisco IP telephony solution. This course focuses primarily on Cisco Call Manager, the call routing and signaling component for the Cisco IP telephony solution. This course includes lab practice where you will install and configure Cisco CallManager; configure gateways, gatekeepers and switches; and build route plans to place intra- and intercluster Cisco IP phone calls. You will also configure telephony class of service (CoS), numerous user telephone features and media resources.

Who should attend

Channel partners/resellers, customers and employees.

Course Objectives

Upon completion of this course you will be able to:

- Identify AVVID and CallManager Components
- Define and list benefits of CallManager Cluster and Deployment Options
- Install the Cisco Call Manager components and upgrade a Call Manager Cluster
- Describe the various IP phone models and list their features
- Configure Cisco Call Manager to support IP phones

Prerequisites: To benefit fully from this course, you must have these prerequisite skills and knowledge:

- Cisco CCNA certification
- Building Cisco Multilayer Switched Networks (BCMSN)
- Cisco Voice over IP (CVOICE)
- Microsoft Software for Cisco Voice (MSCV)

5 Days | 3.0 CEU | Tuition \$2,795

Schedule:

August 28 – September 1, 2006
. Washington, DC
May 7-11, 2007 Washington, DC
August 27-31, 2007 Washington, DC

Cisco IP Telephony Part 2 (CIPT2) NEW

TCOM8919T

The Cisco IP Telephony Part II course focuses on Cisco CallManager advanced features and options. These features include point-to-point video calls for appropriate video enabled endpoints as well as video conferencing, Cisco CallManager Attendant Console, IP Softphone and extension Mobility, security features for hardening of applications and hardware for VoIP, and command-line tools and monitoring devices that Cisco provides for troubleshooting voice and data networks.

Who should attend

Channel partners/resellers, customers and employees.

Course Objectives

Upon completion of this course you will be able to:

- Configure Cisco Call Manager to support video calls and conferencing
- Configure applications to extend the capabilities of Cisco Call Manager
- Secure an IP Communications network
- Manage IP Communications solutions with internal server tools

Prerequisite: CIPT2 course or equivalent knowledge.

3 Days | 1.8 CEU | Tuition \$1,995

Schedule:

September 5-7, 2006. Washington, DC
 May 14-16, 2007 Washington, DC
 September 4-6, 2007. Washington, DC

Implementing Cisco Voice Gateways and Gatekeepers (GWGK) NEW

TCOM8920T

This advanced Authorized Cisco course covers the in-depth and important topics needed to implement Cisco Voice Gateways and Gatekeepers in Enterprise or Service Provider environments with CallManager and Cisco Unity. Passing the associated GWGK Exam is a requirement for the Cisco Certified Voice Professional (CCVP) certification.

This course will provide students with information and practice activities needed to install, configure, monitor and troubleshoot Cisco voice gateways and gatekeepers in Enterprise installations, in accord with the recommendations of Cisco's Solution Reference Network Design (SRND) for IP Telephony guides. Given a voice over IP design, you will select an appropriate deployment model, correctly configure the Gateways and Gatekeepers (whether distributed or centralized), implement Call Plans and decide how to implement the most commonly offered Service Provider or managed services applications, features or implementation requirements.

Who should attend

Network engineers responsible for implementing Cisco Voice Gateways and gatekeepers in Enterprise or Service Provider environments. This course is recommended for technical professionals pursuing CCVP certification.

Course Objectives

Upon completion of this course you will be able to:

- Explain the function and interoperation of Gateways within a converged network
- Configure and implement a DSPFarm to support specified requirements
- Explain the function and interoperation of Gatekeepers within a converged network
- Determine the relevant technical and business needs that affect the choice of Gateway features, protocols and placement
- Determine the relevant technical and business needs that affect the choice of Gatekeeper features
- Configure and implement a Gateway to interface with the PSTN
- Configure and implement a Gateway to interface with a PBX and voice mail system
- Design and deploy a dial-plan to meet specific requirements
- Implement extended services on the Gateway including Auto Attendant and Accounting/Billing
- Design and deploy redundant Gateway configurations to provide high availability
- Design and deploy redundant Gatekeeper configurations to provide high availability
- Configure and implement Gateways and Gatekeepers within a managed services or service provider

Prerequisites: CCNA, QoS (Implementing Cisco QoS), CVOICE (Cisco Voice over IP), CIPT1 (Cisco IP Telephony Part 1) and CIPT2 (Cisco IP Telephony Part 2).

5 Days | 3.0 CEU | Tuition \$2,795

Schedule:

November 27 – December 1, 2006
 Washington, DC
 March 12-16, 2007 Washington, DC
 May 21-25, 2007 Washington, DC
 September 10-14, 2007 Washington, DC

We'd like to introduce you to some of our friends.

The Graduate School offers courses and certificates that can be accepted for credit at many degree-granting institutions.

For more information about our Partners in Education, visit www.grad.usda.gov/partners.

PRESENTATIONS

Microsoft PowerPoint 2003: Introduction

PRES7950T

Microsoft PowerPoint allows users to develop effective presentations and deliver them professionally using today's screen projection technology. Working with this application, students explore the functions of the software and the communications principles that lead to dynamic slide shows. Participants learn such basics as creating and saving a presentation, adding new slides, using templates, editing slides, working with graphics and clip art, and adding speaker notes.

What you will learn

- PowerPoint start-up procedures and menu commands
- Presentation creation
- Template and wizard usage
- Format processes including borders, shading, graphics and clip art
- Printing tasks, including slides, speaker notes, handouts and entire presentations

Who should attend

Individuals wishing to create effective presentations will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Select AutoLayout and create a new presentation
- Utilize design templates, content templates and the AutoContent wizard
- Compose bulleted and numeric lists and use the format painter; copy and move text between slides
- Enhance presentation text and use outline view
- Insert, reposition, crop and resize clip art
- Prepare multiple presentations with moving and copying between windows

Prerequisite: Knowledge of Microsoft Windows.

2 Days | 1.2 CEU | Tuition \$595

Schedule:

July 10-11, 2006 Washington, DC
 September 25-26, 2006 Washington, DC
 October 16-17, 2006 Washington, DC
 November 20-21, 2006 Washington, DC
 February 20-21, 2007 Washington, DC
 April 23-24, 2007 Washington, DC
 May 29-30, 2007 Washington, DC
 July 9-10, 2007 Washington, DC
 August 28-29, 2007 Washington, DC
 September 24-25, 2007 Washington, DC

Microsoft PowerPoint 2003: Intermediate

PRES8950T

In this advanced skills workshop, users move beyond the basics of presentations and learn how to add professional style enhancements to their slide shows. Customized color schemes, special animations, effective transitions, picture files, sound and video clips, hyperlinks and action button are some of the many techniques demonstrated.

What you will learn

- Customized color schemes
- Slide master, title master, notes master and handout master
- Special animation and transition effects
- Picture, sound and video insertions
- Manipulation of clip art and graphical objects on slides
- The AutoShape component

Who should attend

This course is designed for individuals who wish to learn more advanced presentation techniques.

Course Objectives

Upon completion of this course you will be able to:

- Utilize PowerPoint tables and insert Microsoft Word tables
- Create and apply color schemes to templates
- Compose and edit notes and masters
- Design and apply special effects involving multimedia
- Present a slide show to a broader audience through Web pages, online meetings and broadcast
- Animate text on slides

Prerequisite: Microsoft PowerPoint 2003: Introduction (PRES7950T).

2 Days | 1.2 CEU | Tuition \$595

Schedule:

July 12-13, 2006 Washington, DC
 September 27-28, 2006 Washington, DC
 November 27-28, 2006 Washington, DC
 February 22-23, 2007 Washington, DC
 April 25-26, 2007 Washington, DC
 July 11-12, 2007 Washington, DC
 August 30-31, 2007 Washington, DC
 September 26-27, 2007 Washington, DC

Graduate School, USDA online courses are instructor-led and available on the Blackboard platform. Once you register for an online course the Graduate School will e-mail you your password and the information you need to access the course. Instructors design the 8-week and 3-week courses. The same instructors will assign and evaluate projects, providing feedback to the students regarding their progress. Instruction is enhanced through interactivity and through collaboration via discussion board and e-mail. Instructors are available via e-mail to answer questions.

Microsoft PowerPoint 2003 (Introduction through Advanced) (Online)

PRES9750T

This online, instructor-led course in Microsoft PowerPoint allows users to develop effective presentations and deliver them professionally using today's screen projection technology. This online course consists of two modules. (1) In Module I, students explore the functions of the software and the communications principles that lead to dynamic slide shows. Participants learn such basics as creating and saving a presentation, adding new slides, using templates, editing slides, working with graphics and clip art, and adding speaker notes. (2) In Module II, users move beyond the basics of presentations and learn how to add professional style enhancements to their slide shows. Customized color schemes, special animations, effective transitions, picture files, sound and video clips, hyperlinks and action buttons are some of the many techniques demonstrated.

What you will learn

- PowerPoint start-up procedures and menu commands
- Template and wizard usage
- Format processes including borders, shading, graphics and clip art
- Printing tasks, including slides, speaker notes, handouts and entire presentations
- Customized color schemes
- Slide master, title master, notes master and handout master
- Special animation and transition effects
- Picture, sound and video insertions
- Manipulation of clip art and graphical objects on slides
- The AutoShape component

Who should attend

Individuals wishing to create effective presentations will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Utilize design templates, content templates and the AutoContent wizard
- Compose bulleted and numeric lists and use the format painter
- Copy and move text between slides
- Prepare multiple presentations with moving and copying between windows
- Utilize PowerPoint tables and insert Microsoft Word tables
- Create and apply color schemes to templates
- Design and apply special effects involving multimedia (video clips and sound)
- Insert hyperlinks from a PowerPoint presentation to an online or offline Web page
- Present a slide show to a broader audience through Web pages, online meetings and broadcast
- Animate text on slides

8 Weeks | 5.0 CEU | Tuition \$995 plus course materials

Schedule:

October 23 – December 19, 2006
 March 12 – May 4, 2007

Microsoft Powerpoint 2003 (Online) is also available by module.

Microsoft PowerPoint 2003: Introduction (Online)

PRES7868T

3 Weeks | 1.8 CEU | Tuition \$495 plus course materials

Schedule:

October 23 – November 13, 2006
 March 5-23, 2007

Microsoft PowerPoint 2003: Intermediate (Online)

PRES8868T

3 Weeks | 1.8 CEU | Tuition \$495 plus course materials

Schedule:

November 13 – December 5, 2006
 April 9-27, 2007

PROJECT MANAGEMENT

Project Management for IT: Application and Integration

PROJ7602T

This four-day course is designed to provide a practical, industry/DoD-standard approach to managing project implementations of IT initiatives. The course describes the project management knowledge areas, specific activities performed by a project manager under each area, and the tools and techniques to be applied in specific management situations. The class is a hands-on, case-study-based endeavor. Practical examples of project planning concepts, scope and resource management, cost and schedule development, risk and change management, and use of earned-value analysis for project control are central to this course.

What you will learn

- Specific steps in project planning
- Project organizational structure and management
- Activity-based cost estimation and schedule development, utilizing techniques such as PERT
- Steps in managing risks that affect IT projects
- Cost and schedule development and control
- Project evaluation techniques

Who should attend

Attendees should have worked on a program or project, or have participated in the procurement process for an IT initiative.

Course Objectives

Upon completion of this course you will be able to:

- Perform project initiating processes, including: needs identification; defining concept of operation; and specifying high-level goals, objectives, funding and program/project management authority
- Establish a planning phase detailing a project plan for the life of an IT project
- Construct an implementation design and development activity for the creation of an IT project product
- Test and evaluate an implementation at component and system levels
- Manage and maintain IT project baselines
- Transition and close IT project products into use within an organization

Prerequisites: Students must have worked on a program/project or have participated in the procurement process for an IT initiative. Experience using MS Excel and MS Word or equivalent is required. Experience with MS Project is a plus.

4 Days | 2.4 CEU | Tuition \$1,365

Schedule:

September 25-28, 2006 . . . Washington, DC
 January 23-26, 2007 Washington, DC
 March 12-15, 2007 Washington, DC
 June 18-21, 2007 Washington, DC
 September 24-27, 2007 . . . Washington, DC

Microsoft Project 2003

PROJ7980T

This three-day course is designed for individuals who wish to improve their ability to manage tasks and task-related resources, timelines and costs. Participants learn to use this application's tools to better organize work and people, ensuring that projects are delivered on time and within budget. Methods for controlling and updating progress, tracking schedule and resource changes, and creating reports will be demonstrated.

What you will learn

- Project management techniques
- Task updates
- Timeline and task relationships
- Resource assignments within a project
- Cost allocations and management
- Charting and printing of project information

Who should attend

Program managers, project managers and systems analysts who wish to learn and apply a tool that utilizes software processes to assist in managing project efforts.

Course Objectives

Upon completion of this course you will be able to:

- Create a project plan containing tasks, durations, milestones and costs
- Set up and document people resources, equipment resources and material resources
- Utilize Gantt charts and tables to format a project plan
- Customize and print project views
- Track project progress through timelines and troubleshoot time and schedule problems
- Adjust and optimize project plans over time

Prerequisite: Knowledge of Microsoft Windows.

3 Days | 1.8 CEU | Tuition \$995

Schedule:

July 10-12, 2006 Washington, DC
 September 6-8, 2006. Washington, DC
 October 3-5, 2006 Washington, DC
 December 4-6, 2006 Washington, DC
 February 5-7, 2007 Washington, DC
 May 14-16, 2007 Washington, DC
 July 9-11, 2007 Washington, DC
 September 5-7, 2007. Washington, DC

Fundamentals of IT Management and Capital Planning

TECH7705T

Understand the comprehensive background and essential components of managing Information Technology (IT) under the information technology Management Reform (Clinger-Cohen) Act in this four-day project management course. Emphasis is placed on managing IT software, hardware and services as an investment enterprise utilizing the established guidance from the Office of Management and Budget (OMB) and the Government Accountability Office (GAO). Practical examples of capital planning, performance measures, return on IT investment and project management are demonstrated in detail using Exhibit 300. Techniques and examples of IT business cases and performance metrics are also explored. A capital asset project management template and associated worksheets are used as a demonstration of project management software.

What you will learn

- Specific details and requirements of the Clinger-Cohen Act
- Role of IT and strategic plans
- Specific steps in IT project management in today's government
- Federal considerations in IT management such as OMB circulars and GAO reports
- Capital planning for IT investments and performance metrics

Who should attend

IT decision makers and IT team members; chief information office staff, procurement staff and chief financial officer staff.

Course Objectives

Upon completion of this course you will be able to:

- Apply the eleven fundamental practices of strategic information management to build a modern IT infrastructure and improve mission performance
- Analyze problems involved in computer procurement and implement solutions to improve effective oversight of computer systems acquisitions
- Articulate useful practices and tools for effective management of information systems projects
- Apply "best practices" and success factors in establishing capital planning for IT
- Link strategic planning to performance results by implementing approaches such as the Balanced Scorecard and Hoshin Planning models
- Understand and apply concepts such as life-cycle costs and benefits and cost-benefit analysis
- Be familiar with the framework of the Project Management Body of Knowledge (PMBOK) Guide and the nine knowledge areas

4 Days | 2.4 CEU | Tuition \$995

Schedule:

August 8-11, 2006 Washington, DC
 March 5-8, 2007 Washington, DC
 May 7-10, 2007 Washington, DC
 August 7-10, 2007 Washington, DC

Like what you see?
 There's more where
 this came from.

Call us at (888) 744-GRAD for additional catalogs, or visit
www.grad.usda.gov/request.

SECURITY

Introduction to Information Security

SRTY7000T

Introduction to Information Security is designed for professionals who need a basic understanding of information security fundamentals, skills, tools and terminology. Participants in this five-day course receive a broad overview of major security topics, including security policy essentials, TCP/IP network security, federal security standards and industry-best policies. This course also explores current systems hardening techniques, intrusion detection concepts, and practices, access control and encryption methodologies.

What you will learn

- Information technology security issues and physical access controls
- Personnel security requirements
- Software, hardware and network security issues
- The telecommunications security process
- Computer security laws, directives and regulations
- Physical security, and disaster planning and recovery

Who should attend

This workshop is directed toward security officers, security specialists and professionals who wish to enhance their security awareness.

Course Objectives

Upon completion of this course you will be able to:

- Apply the systems development life cycle (SDLC) to security processes
- Articulate the communication elements in network systems and topological security
- Facilitate firewall deployment
- Identify and explain intrusion detection systems on networks
- Promote, explain and relate authentication and encryption solutions

5 Days | 3.0 CEU | Tuition \$1,495

Schedule:

August 21-25, 2006 Washington, DC
 November 13-17, 2006 Washington, DC
 January 29 – February 2, 2007
 Washington, DC
 April 9-13, 2007 Washington, DC
 August 20-24, 2007 Washington, DC

Are you
Laid Back or Formal ?

Every agency, organization and department is different. That is why we can customize all of our training and services to fit your specific needs and deliver them directly to you, wherever you are.
www.grad.usda.gov/customized

Fundamentals of Computer Security for Federal Information Systems

SRTY7768T

This five-day course provides participants with an overview of security issues specifically related to the federal government. Designed to introduce and cover the basic areas of concern facing computer security officers, from mainframes to PCs, the course objectives are reached through lecture, group discussion, slides and video presentations. Insights into computer security based on operational experiences are provided by the instructor. Students also perform hands-on risk analysis exercises. This course covers in detail all areas of training mandated by the Computer Security Act of 1987.

What you will learn

- Computer security laws, directives and regulations
- Information technology and physical access controls
- Media protection and environmental concerns
- Telecommunications and life-cycle management
- The effects of hackers and viruses on computer systems
- Mini- and micro-computer security requirements

Who should attend

Computer security officers, criminal investigators, IT officials, internal control officers under OMB Circular A-123, ADP auditors, data processing managers and others needing information on the computer security process will benefit from this workshop. This course is also especially valuable for the recently appointed computer security officer.

Course Objectives

Upon completion of this course you will be able to:

- Identify major areas of computer security breaches under the Computer Security Act of 1987
- Formulate responses to security issues in federal government agencies directly related to current laws, directives and regulations
- Institute computer security program management
- Analyze both hardware and software security problem areas
- Perform contingency and disaster planning
- Articulate personnel security requirements

5 Days | 3.0 CEU | Tuition \$1,495

Schedule:

August 7-11, 2006 Washington, DC
May 7-11, 2007 Washington, DC
August 6-10, 2007 Washington, DC

Advanced Intrusion Detection Implementation

SRTY9004T

Intrusion detection technologies are vital in supplementing firewalls and VPN devices when developing a layered security architecture. In this five-day course, intrusion detection technologies are discussed in depth, from the origins of the science to the latest developments in intrusion prevention technologies. Participants learn via classroom lectures and hands-on lab modules. The hands-on portion of the course in intrusion detection is designed around the Snort Open Source IDS engine for Network Intrusion Detection lab exercises and Zone Alarm for Host-Based Intrusion Detection lab exercises.

What you will learn

- Introduction to Open Source IDS environments
- Snort Fundamentals
- Zone Alarm configuration for host-based IDS
- Enterprise IDS Architecture Sensor Deployment
- Snort, ACID (Analysis Console for Intrusion Detection) and MySQL configuration and operation
- Creating Snort Rules
- Testing rules and sensor configuration

Who should attend

This course is designed for Certified Information Security Specialists seeking advanced training towards a higher-level certification. Network administrators, security administrators, security consultants and those who are responsible for deploying Open Source Intrusion Detection sensors in their organizations will benefit. Individuals attending this class should have at least two years of experience in data networking or information security. It is assumed that students have a technical understanding of TCP/IP networking and network architecture.

Course Objectives

Upon completion of this course you will be able to:

- Deploy an Open Source IDS solution for the enterprise network
- Deploy effective host-based IDS solutions
- Write and configure custom IDS rules
- Effectively manage and manipulate IDS logs and output files Configuration of (ACID, MySQL and Snort)
- Troubleshoot and test Snort Open Source IDS solutions

5 Days | 3.0 CEU | Tuition \$1,495

Schedule:

November 27 – December 1, 2006
. Washington, DC
January 22-26, 2007 Washington, DC
May 21-25, 2007 Washington, DC

Certified Information System Security Professional (CISSP) Prep

SRTY9100T

CISSP designation has clearly emerged as the pivotal certification in this field. It provides security professionals with a broad skill set in security policy to protect against and defeat hackers. Federal agencies and private sector companies benefit when their IT personnel understand the technical requirements necessary to meet the demands of today's IT security environment and guard assets from unauthorized access.

This five-day course provides intensive CISSP training in preparation for taking the certification exam. It addresses a variety of intrusion detection tools and techniques and countermeasures used in building secure, impregnable networks. Hands-on labs are designed to simulate experiences encountered in the real world and reinforce the skills discussed throughout the class.

What you will learn

- Various trends in information warfare and the layered approach to security
- Security management practices
- Principles and models of access control
- Security models relating to computer architecture
- Physical security risks, issues and control
- Telecommunications and network security layers

Who should attend

This course is designed for security officers, security specialists and professionals desiring certification as Certified Information Systems Security Professionals.

Course Objectives

Upon completion of this course you will be able to:

- Build an organizational security model and understand the processes of risk analysis
- Apply techniques, technologies and practices to security features controlling how users and systems communicate and interact
- Construct and evaluate security models within the scope of security modes of operation
- Plan for physical security components through facilities management, environmental management and perimeter management
- Analyze and perform organizational continuity and disaster recovery practices
- Articulate the importance of application and system software developments in security

5 Days | 3.0 CEU | Tuition \$1,495

Schedule:

August 21-25, 2006 Washington, DC
May 7-11, 2007 Washington, DC
August 20-24, 2007 Washington, DC

Master of Science in Network Security from Capitol College, a Center of Academic Excellence in Information Assurance (IA) Education!

Capitol College is one of a select number of institutions named by the National Security Agency as a National Center of Academic Excellence in IA Education. Courses are available online and are taught by some of the nation's leading experts in the field of network and information security. The Graduate School, USDA and Capitol College have come together to offer professionals and specialists an online certificate in security management. You learn to prepare for, respond to and recover from threats to information infrastructure. For information on the certificate, see p. 70.

Completing courses at the Graduate School, USDA in security management offers participants an additional benefit: you may apply three of the courses toward the Master of Science in Network Security from Capitol College.

Each eight-week course consists of a weekly two-hour, real-time session, supplemented by two-hour practice sessions. During the live class-time sessions, you simply get online and log in to listen to the instructor, while participating with other students. Courses may be completed from home or office, individually or with a group. The total class time is only four hours per week, so you participate without a major disruption to your work or home life.

Network Systems Security Concepts (Online)

NEW

SRTY7020T

Note: This Graduate School, USDA security management (online) certificate course applies to the Capitol College Master of Science in Network Security.

Do you want to better understand the threats to a computer network and how to defend against attacks and intrusions? This eight-week introductory course is a basic exploration of the definitions, concepts and issues regarding network and systems security that face organizations today. Participants examine how the concept of security—and being secure—integrates into the mission of an agency or private business. While learning the concepts, students will explore the importance of user involvement, security training, ethics, trust and informed management.

What you will learn

- Terms, definitions and concepts related to the issues facing the industry
- Cryptosystems and their uses
- Password authentication weaknesses
- How data is intercepted
- The purpose of firewall, VPN and IDS devices

Who should attend

Professionals who need a basic understanding of network security fundamentals, tools and terminology.

Course Objectives

Upon completion of this course you will be able to:

- Define various threats, vulnerabilities and controls, and other terms related to network security
- Describe different people who attack systems and their motivations
- Understand the principles behind cryptosystems and their common uses
- Analyze the common weaknesses associated with using passwords for authentication, and be able to describe controls to mitigate these weaknesses
- Understand the basic theory behind how data is intercepted on various types of media
- Articulate the purpose of firewalls, VPN and IDS network security devices, and where they tend to fit best

8 Weeks | 5.0 CEU | Tuition \$1,095 plus course materials

Schedule:

July 11 – August 31, 2006
 September 5 – October 26, 2006
 January 9 – March 1, 2007
 March 6 – April 26, 2007
 June 26 – August 16, 2007
 August 21 – October 11, 2007

Secure Information Transfer and Storage (Online)

NEW

SRTY8020T

Note: This Graduate School, USDA security management (online) certificate course applies to the Capitol College Master of Science in Network Security.

Information is secured through various forms of cryptography. In this eight-week course, you learn the history of cryptography and the advanced cryptography of today. Study current topics such as public- and private-key cryptography, cryptographic attacks, public key infrastructure, one-way hashes and digital signatures and additional methods to secure and transfer information.

What you will learn

- Cryptography history, from Caesar's cipher to elliptic-curve cryptography
- Ciphers, digital signatures, one-way hashes
- Encryption techniques
- Types of attacks and defenses
- Trust infrastructure development methods
- Public-key infrastructure and certificate authorities

Who should attend

Professionals and specialists who want to better understand the process of cryptography and how secure information can better enhance their systems.

Course Objectives

- Understand the types of ciphers
- Identify types of cryptographic attacks
- Evaluate available defenses against cryptographic attacks
- Integrate encryption into a network system security plan

8 Weeks | 5.0 CEU | Tuition \$1,095 plus course materials

Schedule:

September 5 – October 26, 2006
 October 31 – December 21, 2006
 March 6 – April 26, 2007
 May 1 – June 21, 2007
 August 21 – October 11, 2007

Computer Forensics and Incident Handling (Online)

NEW

SRTY9020T

Note: This Graduate School, USDA security management (online) certificate course applies to the Capitol College Master of Science in Network Security.

In this eight-week course, you learn laws and rights to individual privacy and the limitations of organizations. You also discuss incident handling and how incident response teams work and how to manage trouble tickets. You learn the basic analysis of events to determine if an incident did occur. The course concludes with computer forensics issues and rules of evidence.

What you will learn

- Laws regarding individual privacy
- Privacy ethics
- Internet fraud, unauthorized access, information theft evaluation methods
- Electronics surveillance methods

Who should attend

Professionals and specialists who want to know how to ethically and legally handle and respond to network intrusions.

Course Objectives

Upon completion of this course you will be able to:

- Understand privacy and intellectual property from an individual and corporate perspective
- Evaluate a computer security incident involving insider threat, Internet fraud, ransom letters, unauthorized access, denial of service, theft of information and theft of identity
- Determine the best response to a security incident
- Implement a computer security strategy, detailed checklists and toolkit
- Understand the role of the response team, legal counsel and law enforcement

8 Weeks | 5.0 CEU | Tuition \$1,095 plus course materials

Schedule:

July 11 – August 31, 2006
 September 5 – October 26, 2006
 January 9 – March 1, 2007
 March 6 – April 26, 2007
 June 26 – August 16, 2007
 August 21 – October 11, 2007

Internal Protection (Online)

NEW

SRTY9120T

Note: This Graduate School, USDA security management (online) certificate course applies to the Capitol College Master of Science in Network Security.

This course explores the protections available to the practitioner, through host operating systems and third-party equipment and software, to protect the inner network from the attacker who has successfully circumvented the perimeter or from the disgruntled insider. Use of methodologies including host-based intrusion detection methods, audit settings, PC Firewalls, host operating hardening for Linux and Windows 2000, and Virtual LANs will be reviewed.

What you will learn

- The identification of threats, vulnerabilities and safeguards
- Security policy development
- Confidentiality, integrity and availability of system assets to support risk management
- Cost-effective countermeasures
- Long-term contingency planning

Who should attend

Professionals and specialists who need to understand how to analyze a network and minimize the risk of intrusion.

Course Objectives

Upon completion of this course you will be able to:

- Understand and articulate the entire risk management process
- Apply methods of risk assessment analysis
- Determine and justify application of cost-effective countermeasures and effective disaster recovery and testing processes
- Identify and develop an appropriate risk assessment technique and develop security policy needs, given an organizational scenario
- Create and execute effective questions for interviews to determine issues related to the confidentiality, integrity and availability of work assets
- Devise effective and comprehensive security and evaluation tests

8 Weeks | 5.0 CEU | Tuition \$1,095 plus course materials

Schedule:

July 11 – August 31, 2006
 September 5 – October 26, 2006
 October 31 – December 21, 2006
 January 9 – March 1, 2007
 May 1 – June 21, 2007
 June 26 – August 16, 2007

Vulnerability Mitigation (Online)

NEW

SRTY9989T

Note: This Graduate School, USDA security management (online) certificate course applies to the Capitol College Master of Science in Network Security.

This “defense-in-depth” course provides the student detailed understanding of the need for internal and external vulnerability assessment. This course approaches the issue of hackers and hacking from the perspective of a hacker trying to get into a system. The sister course to this one is Computer Forensics and Incident Handling (SRTY9020T), which deals with the other side of the coin, as well as how to detect attackers once they get into the system and how to determine where they have been. This course will introduce you to hackers, their tools and their techniques.

What you will learn

- How to identify vulnerability exposure and risks
- Network penetration from the Internet and what that entails
- Dial-in attacks and how they can expose your network
- Social engineering—what it is, and how it is used in hacking
- Intrusion detection systems and how they affect hacking

Who should attend

Professional and specialists responsible for security who need to understand how hackers penetrate networks.

Course Objectives

Upon completion of this course you will be able to:

- Deploy the tools necessary for a security professional to perform adequate penetration testing
- Understand remote control and how it can be compromised
- Implement firewalls in the overall security architecture of a system
- Identify denial of service attacks—including implications and avoidance

Prerequisite: Network Systems Security Concepts (SRTY7020T)

8 weeks | 5.0 CEUs | \$1,095 plus course materials

Schedule:

September 5 – October 26, 2006
 October 31 – December 21, 2006
 March 6 – April 26, 2007
 May 1 – June 21, 2007
 August 21 – October 11, 2007

Wireless Network Security (Online)

NEW

SRTY9990T

Note: This Graduate School, USDA security management (online) certificate course applies to the Capitol College Master of Science in Network Security.

This course provides students with an in-depth understanding of the security vulnerabilities in the various methods of wireless communications and their corresponding countermeasures. This course also provides training on practical methods for designing, configuring, testing and maintaining wireless networks appropriate to organizations' operating requirements. Students will be introduced to wireless network protocols, access modes, portable communications and computing devices, management tools, security solutions and current industry best practices for managing wireless communications in a secure environment. Case studies will be used throughout the course.

What you will learn

- Wireless network architecture and security standards
- Spectrum usage and regulations
- Current best practices for wireless network administration
- Tools for managing wireless implementation
- Methods of securing wireless transmissions
- Perimeters security issues associated with wireless implementations

Who should attend

Professionals and specialists who need to understand how to secure wireless networks.

Course Objectives

Upon completion of this course you will be able to:

- Understand cost/benefit analysis of security risks inherent to wireless systems for management purposes
- Implement common techniques for the successful integration of wireless networking within an organization
- Articulate typical network security policy issues and recommended practices
- Utilize strategies for authenticating users and devices over wireless networks
- Identify common vulnerabilities and exploits affecting wireless networks

8 weeks | 5.0 CEU | \$1,095 plus course materials

Schedule:

September 5 – October 26, 2006
January 9 – March 1, 2007
May 1 – June 21, 2007
June 26 – August 16, 2007

Wi-Fi Wireless Networking Technology and Security

SRTY7303T

Wireless technology has been identified as the new frontier of data networks. Wireless LANs and advanced wireless communication infrastructures like 3G have propagated rapidly in both business and residential use, and new guidelines requiring DoD Wi-Fi networks to encrypt all traffic have been put into effect. Security concerns relating to wireless technology have prompted end users to reassess the security of critical wireless applications and sensitive data traveling across these networks.

This three-day course is intended for networking and information technology/assurance professionals who require a working knowledge of wireless communication technologies and wireless security. The course provides a comprehensive look at the broad scope of wireless communication technologies, including 3G packet switched radio, 802.11x, WiMAX and Bluetooth. Techniques and technology used in securing wireless communications, including Wireless DMs, MAC Filtering and the latest encryption standards, are also covered in detail. Students perform hands-on lab exercises, such as configuring and securing 802.11x Wi-Fi networks with various protocols, including techniques using WEP and IPSEC encryption.

What you will learn

- Basic wireless communication theory
- 3G/VoIP/Wi-Fi digital convergence technology overview
- Bluetooth technology overview
- 802.11 Wi-Fi WLAN secure implementation principles
- Advanced WLAN security implementation (wireless DMZ)
- Wireless wide/metropolitan area network technology overview WWAN/WMAN/WiMAX
- Mobile application development fundamentals

Who should attend

This course is designed for Certified Information Security Specialists seeking advanced training towards a higher-level certification. Individuals attending this class should have at least two years of experience in data networking or information security. A working knowledge of TCP/IP is required.

Course Objectives

Upon completion of this course you will be able to:

- Deploy and secure Wi-Fi 802.11x networks
- Identify rouge access points in existing WLANs
- Deploy encryption technologies in wireless networks for federal and DoD compliance
- Plan wireless wide area network solutions and strategic visioning
- Perform project work identifying basic needs for mobile application solutions development

3 Days | 1.8 CEU | Tuition \$1,195

Schedule:

August 30 – September 1, 2006
..... Washington, DC
April 18-20, 2007 Washington, DC
August 15-17, 2007 Washington, DC

Wireless Laptop Setup and Security

SRTY7304T

Wireless data networks are rapidly emerging as the connectivity medium of the future. Today's tech-savvy professional must stay connected to keep pace with ever increasing workloads. New guidelines requiring DoD Wi-Fi networks to encrypt all traffic have been put into effect, and HIPAA and Sarbanes-Oxley legislation affect both the federal and private sector usage of wireless networks. The default or out-of-the-box configurations in use by many organizations today can pose serious security concerns. This course is designed to teach students how to configure a desktop or laptop for use on 802.11x-compatible wireless LANs. Setup and configuration of small or home office wireless networks are addressed. Participants learn the techniques necessary for secure configuration of wireless clients and the small or home office WLAN.

What you will learn

- Installation and configuration of various wireless interfaces including USB, and PCMCIA and PCI cards
- Basic wireless-enabled laptop/desktop secure configuration
- 802.11 Wi-Fi WLAN secure implementation principles
- Dos and don'ts of wireless connectivity

Who should attend

This course is designed for individuals responsible for the setup and configuration of 802.11 family wireless access points and clients. Those responsible for retrofitting security onto existing 802.11-compatible networks will also benefit.

Course Objectives

Upon completion of this course you will be able to:

- Deploy and secure Wi-Fi 802.11x network access points
- Configure secure connectivity for mobile or desktop clients
- Deploy basic encryption technologies in wireless networks

1 Day | 0.6 CEU | Tuition \$575

Schedule:

November 20, 2006 Washington, DC
February 14, 2007 Washington, DC
July 2, 2007 Washington, DC
September 6, 2007 Washington, DC

Security + (Online)

SRTY9104T

This online, instructor-led course prepares students for the Security+ exam. Neither technologies nor policies alone offer effective protection against security threats. Theft, destruction of intellectual property and denial of service attacks take place despite the presence of firewalls, encryption and corporate edicts. Government and industry worldwide must have a well-trained workforce to effectively combat hackers, attacks and security threats.

The main goal of this course is to provide students with a fundamental understanding of network security principles and implementation. Security+ training tests for security knowledge mastery of an individual with two years on-the-job networking experience, with emphasis on security.

The Security+ exam covers industrywide topics, including communications security, infrastructure security, cryptography, access control, authentication, external attack, and operational and organization security.

What you will learn

- Access control models including mandatory access control (MAC), discretionary access control (DAC) and role-based access control (RBAC)
- How to identify a variety of attacks: denial of service, Back Door, Spoofing, Man in the Middle and Replay
- Malicious codes such as viruses, Trojan Horses, Logic Bombs and Worms and how to mitigate vulnerabilities
- The administration of remote access technologies: 802.1x, VPN, Radius, TACAC and IPSEC
- Administration of Internet security for Secure Sockets Layer/Transport Layer Security and Hypertext Transfer Protocol
- Security for and implementation of firewalls, routers, switches, wireless and modems
- How to differentiate types of intrusion detection: network-based or host-based
- Application hardening

Who should attend

Networking and security professionals interested in a comprehensive online curriculum that will focus on the broad spectrum of information security concepts. IT staff interested in acquiring the Security + certification.

Course Objectives

Upon completion of this course you will be able to:

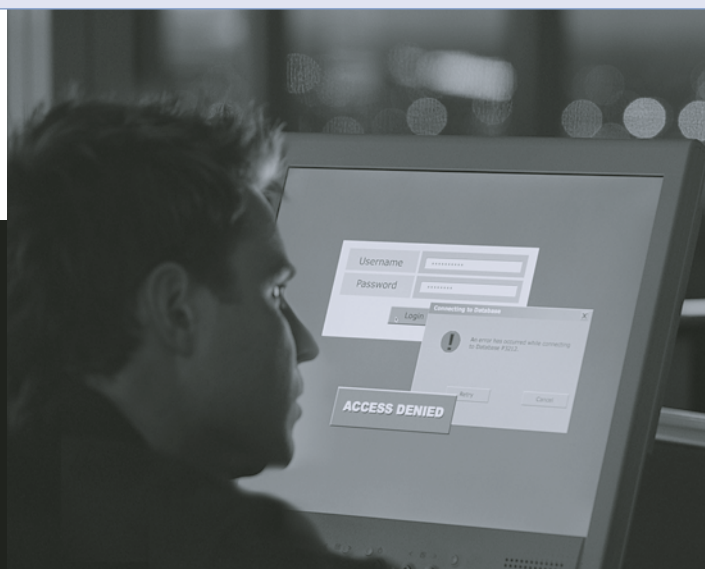
- Identify the appropriate action to take to mitigate risk from malicious code and a variety of attacks
- Identify the concepts of DMZs, VLANs, Network Address Translation and VPNs
- Recognize and explain the concept of security baselines
- Configure and implement a variety of intrusion detection systems
- Understand physical security concepts such as access control and social engineering

Prerequisites: Minimum requirements: two years of experience in TCP/IP and Windows or Unix system administration.

8 Weeks | 5.0 CEU | Tuition \$995 plus course materials

Schedule:

September 5 – October 31, 2006
March 12 – May 4, 2007
May 7 – July 2, 2007



Information Security Specialist Certification Program

SRTY9999T

Acquire the knowledge and learn the skills to detect a hacker, eradicate a virus or establish a firewall. The Information Security Specialist Certification Program is a two-week training curriculum that meets the increasing demand for skilled IT security professionals. The certificate program integrates theoretical and practical knowledge via hands-on laboratory instruction combined with design, implementation and management skills. Students develop platform-independent expertise in securing an information technology system.

Information Security Essentials

The first week of training focuses on building key concepts and the critical core knowledge that will allow an ISSC-certified individual the platform-independent expertise required by the diverse technical environment of information security technology. These concepts include advanced TCP/IP protocol analysis, including encryption techniques, TCP and IP packets analysis, and port modeling on TCP/IP devices. Attack methodology is also covered in depth as various attack methods and the latest exploits are explained in detail. An overview of intrusion detections techniques, technologies and strategies plus operating systems hardening techniques for Windows 2000/XP are also addressed.

Introduction to Cyberwarfare

Advanced offensive and defensive strategies are discussed. Offensive operations include instruction and demonstration of hands-on hacking techniques and discussion of penetration strategies with real-world examples. Students build a hacker's "toolbox." Defensive strategies include analysis of firewall technology and implementation strategies. Studies focus on development of a firewall rule base and analysis and comparison of state-full and proxy firewalls and VPN technologies. Hands-on lab modules, including commercial and open-source firewalls, are utilized.

What you will learn

- Information security basics
- TCP/IP protocol reviews
- Methodologies for attacking computer systems
- Firewall implementations
- Intrusion detection processes
- Operating systems protections and authentications
- Offensive and defensive strategies in cyberwarfare strategies

Who should attend

The certification program is designed to meet the demand for highly skilled information security personnel. Experienced system administrators and network administrators with TCP/IP experience and government IT professionals seeking to develop experience in the field of information security will benefit from this program.

Course Objectives

Upon completion of this course you will be able to:

- Develop sound security policies in response to threats against IT systems
- Perform traffic analysis under TCP/IP and institute appropriate responses to intrusions
- Implement hardening and authentication processes upon operating systems
- Understand Virtual Private Networks (VPN) and various encryption schemes for data transfer
- Recognize Public Key Infrastructure (PKI) with certificate authorities as enterprise level verification systems for financial transactions among computer systems
- Build a dynamic packet-filtering firewall including a state table
- Participate in penetration-testing exercises utilizing open-source tools including Nessus

10 Days | 6.0 CEU | Tuition \$3,295

Schedule:

July 10-21, 2006 Washington, DC
 September 11-22, 2006 Washington, DC
 February 26 – March 9, 2007 Washington, DC
 May 14-25, 2007 Washington, DC
 July 9-20, 2007 Washington, DC
 September 10-21, 2007 Washington, DC

Security Management Certificate (Online)

SRTY9988T



Learn about the threats facing networks, how to detect them, how to respond and how to manage a more secure system, all from the convenience of your home or workplace. With this certificate, you develop a fundamental understanding of network systems security and how it can be integrated into your organization. You learn aspects such as detection, recovery and damage control methods, as well as the laws and rights to privacy.

The introductory course, Network Systems Security Concepts, will familiarize you with the security terms and special issues facing organizations. The remaining courses focus on the following: secure data transfer and storage with a history of cryptography and a study of public- and private-key algorithms; risk management; and computer forensics and incident handling with a focus on legal and ethical issues of privacy.

All six courses are delivered online using Capitol College's real-time-based delivery system utilizing live, streaming audio. The system allows you the convenience of online courses while enabling interaction with the instructor and classmates. Learn from Capitol's instructors who are leading experts in the field of network and information security. The network security program at Capitol College has been designated by the National Security Agency as a Center of Academic Excellence in Information Assurance Education.

Select any four courses:

- **Network Systems Security Concepts (SRTY7020T)**
Do you want to better understand the threats to a computer network and how to defend against attacks and intrusions? This eight-week introductory course is a basic exploration of the definitions, concepts and issues regarding network and systems security that face industries today. Participants examine how the concept of security—and being secure—integrates into the mission of an agency or private business. While learning the concepts, students will explore the importance of user involvement, security training, ethics, trust and informed management.
- **Secure Information Transfer and Storage (Online) (SRTY8020T)**
Information is secured through various forms of cryptography. In this eight-week course, you learn the history of cryptography and the advanced cryptography of today. Study current topics such as public- and private-key cryptography, cryptographic attacks, public key infrastructure, one-way hashes and digital signatures, and additional methods to secure and transfer information.
- **Internal Protection (Online) (SRTY9120T)**
This course explores the protections available to the practitioner through host operating systems and third party equipment and software, to protect the inner network from the attacker who has successfully circumvented the perimeter or from the disgruntled

insider. Use of methodologies including host-based intrusion detection methods, audit settings, PC Firewalls, host operating hardening for Linux and Windows 2000, and Virtual LANs will be reviewed.

- **Computer Forensics and Incident Handling (SRTY9020T)**

In this eight-week course, you learn laws and rights to individual privacy and the limitations of organizations. You also discuss incident handling and how incident response teams work, and how to manage trouble tickets. You learn the basic analysis of events to determine if an incident did occur. The course concludes with computer forensics issues and rules of evidence.

- **Vulnerability Mitigation (SRTY9989T)**

This "defense-in-depth" course provides the student detailed understanding of the need for internal and external vulnerability assessment. This course approaches the issue of hackers and hacking from the perspective of a hacker trying to get into a system. The sister course to this one is Computer Forensics and Incident Handling (SRTY9020T), which deals with the other side of the coin, and how to detect attackers once they get into the system, as well as how to determine where they have been. This course will introduce you to hackers, their tools and their techniques.

- **Wireless Network Security (SRTY9990T)**

This course provides students with an in-depth understanding of the security vulnerabilities in the various methods of wireless communications and their corresponding countermeasures. This course also provides training on practical methods for designing, configuring, testing and maintaining wireless networks appropriate to organizations' operating requirements. Students will be introduced to wireless network protocols, access modes, portable communications and computing devices, management tools, security solutions and current industry best practices for managing wireless communications in a secure environment. Case studies will be used throughout the course.

Note: Three courses may be applied to the Capitol College Master of Science in Network Security.

Who should attend

The Security Management Certificate is designed specifically to meet the needs of technical and security staff who must analyze networks and ensure that security strategies are effective.

SPREADSHEETS

Microsoft Excel 2003: Introduction

SPRD7968T

Microsoft Excel is a software application that offers three distinct processes for managing data: spreadsheet, database and graphing. The primary feature, spreadsheet, is a number-crunching tool allowing for sophisticated calculations such as budgets, finances, inventories or any task that is numerically oriented. The database and graphing functions allow for selecting, retrieving, viewing and charting data that is contained within the spreadsheet mode. This course provides a thorough introduction to each of Excel's features.

What you will learn

- Menu and toolbar features of the Excel package
- Creation of a new workbook (spreadsheet)
- Enter and edit data; save data; print and close worksheets
- Formulas and functions
- Column and row updates
- Charting techniques

Who should attend

This course is for participants who want to learn the fundamentals of the spreadsheet application.

Course Objectives

Upon completion of this course you will be able to:

- Create workbooks and perform data entry of numbers, text and formulas
- Use templates and ranges
- Perform copy and move operations
- Utilize page setup and formatting for printing
- Create and work with multiple worksheets
- Perform various charting functions

Prerequisite: Knowledge of Microsoft Windows.

3 Days | 1.8 CEU | Tuition \$695

Schedule:

July 31 – August 2, 2006 .. Washington, DC
 September 6-8, 2006. Washington, DC
 October 23-25, 2006. Washington, DC
 November 6-8, 2006 Washington, DC
 December 4-6, 2006 Washington, DC
 January 8-10, 2007. Washington, DC
 February 12-14, 2007 Washington, DC
 March 19-21, 2007 Washington, DC
 April 2-4, 2007. Washington, DC
 June 18-20, 2007 Washington, DC
 July 30 – August 1, 2007 .. Washington, DC
 September 5-7, 2007. Washington, DC

Microsoft Excel 2003: Intermediate

SPRD8968T

This course builds on the basic introductory skills of Microsoft Excel. The techniques taught in this course assist the user in working with large worksheets and managing multiple layers of worksheets at the same time. Interaction with Web technologies is covered, including saving a worksheet as a Web page. This course also covers the use of enhanced charting facilities and advanced functions.

What you will learn

- Working with large multiscreen worksheets and multiple worksheets at the same time
- HTML and Web page techniques with worksheets
- Advanced function usage
- Worksheet protections
- Enhanced charting techniques

Who should attend

This course is for participants who want to expand their skills and knowledge base in Excel.

Course Objectives

Upon completion of this course you will be able to:

- Select, navigate, rename, insert, delete and print large worksheets
- Apply and delete with ranges for updates and printing
- Prepare HTML files as they apply to worksheets, including the creation of hyperlinks
- Produce and link multiple workbooks, including cascading and tiling of window views
- Utilize the VLOOKUP and HLOOKUP advanced functions as they apply to the workplace

Prerequisite: Microsoft Excel 2003: Introduction (SPRD7968T).

2 Days | 1.2 CEU | Tuition \$595

Schedule:

August 3-4, 2006 Washington, DC
 September 11-12, 2006 Washington, DC
 October 26-27, 2006 Washington, DC
 November 13-14, 2006 Washington, DC
 December 7-8, 2006 Washington, DC
 January 11-12, 2007 Washington, DC
 February 15-16, 2007 Washington, DC
 March 22-23, 2007 Washington, DC
 April 5-6, 2007 Washington, DC
 May 24-25, 2007 Washington, DC
 June 21-22, 2007 Washington, DC
 August 2-3, 2007 Washington, DC
 September 10-11, 2007 Washington, DC

Microsoft Excel 2003: Advanced

SPRD9952T

Explore the advanced management features of the Microsoft Excel database in this three-day course. Primary focus is on using the analysis components within the application to budget and manage financial expenses. Participants learn to work with databases, templates, lists, macros and audit tools. Particular attention is devoted to summarizing large amounts of data rapidly, performing "what-if" analyses and working problems backwards to find variables when a desired outcome or scenario is known.

What you will learn

- Advanced filters
- Scenarios
- Solver
- Report manager
- Macro definitions
- Pivot tables

Who should attend

Microsoft Excel users who wish to learn the advanced features of the application will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Utilize the AutoFilter to process lists
- Create Pivot Table reports and Page Field reports on large databases to display quick summaries
- Ensure consistent appearance of workbooks through the preparation of templates
- Compare various outcomes in worksheets by analyzing data with scenarios and goal seeking
- Perform auditing processes on workbooks
- Automate frequently used operations and tasks by generating macros

Prerequisites: Microsoft Excel 2003: Introduction (SPRD7968T), and Microsoft Excel 2003: Intermediate (SPRD8968T).

3 Days | 1.8 CEU | Tuition \$695

Schedule:

August 14-16, 2006 Washington, DC
 November 15-17, 2006 Washington, DC
 February 21-23, 2007 Washington, DC
 July 23-25, 2007 Washington, DC
 August 13-15, 2007 Washington, DC

Graduate School, USDA online courses are instructor-led and available on the Blackboard platform. Once you register for an online course the Graduate School will e-mail you your password and the information you need to access the course. Instructors design the 8-week and 3-week courses. The same instructors will assign and evaluate projects, providing feedback to the students regarding their progress. Instruction is enhanced through interactivity and through collaboration via discussion board and e-mail. Instructors are available via e-mail to answer questions.

Microsoft Excel 2003 (Introduction through Advanced) (Online)

SPRD9768T

This online, instructor-led course provides you with a comprehensive understanding of Microsoft Excel, a software application that offers three distinct processes for managing data: spreadsheet, database and graphing. The primary feature, spreadsheet, is a number-crunching tool allowing for sophisticated calculations such as budgets, finances, inventories or any task that is numerically oriented. Spreadsheet data are entered and displayed in a grid consisting of rows and columns. The database and graphing functions allow for selecting, retrieving, viewing and charting data that is contained within the spreadsheet mode.

This online course contains three modules: Module I provides a thorough introduction to each of Excel's features. Module II assists the user in working with large spreadsheets and managing multiple layers of spreadsheets at the same time. Interaction with Web technologies is covered, including saving a spreadsheet as a Web page. The use of enhanced charting facilities and advanced functions is also covered. In Module III, the primary focus is on using the analysis components within the application to budget and manage financial expenses. Participants learn to work with databases, templates, lists, macros and audit tools. Particular attention is devoted to summarizing large amounts of data rapidly, performing "what-if" analyses and working problems backwards to find variables when a desired outcome or scenario is known.

What you will learn

- Menu and toolbar features of the Excel package
- Creation of a new workbook (spreadsheet)
- Enter and edit data, save data, print and close spreadsheets
- Formulas and functions, both simple and advanced
- Charting techniques
- Working with large multiscreen spreadsheets and multiple spreadsheets at the same time
- HTML and Web page techniques with spreadsheets
- Spreadsheet protections
- Enhanced charting techniques
- Advanced filters
- Report manager
- Macro definitions
- Pivot tables

Who should attend

Participants who want to learn the fundamentals of the spreadsheet application.

Course Objectives

Upon completion of this course you will be able to:

- Create workbooks and perform data entry of numbers, text and formulas
- Demonstrate use of templates and ranges
- Understand and perform various charting functions
- Select, navigate, rename, insert, delete and print large spreadsheets
- Apply and delete with ranges for updates and printing
- Prepare HTML files as they apply to spreadsheets, including the creation of hyperlinks
- Produce and link multiple workbooks, including cascading and tiling of window views
- Utilize the VLOOKUP and HLOOKUP advanced functions as they apply to the workplace
- Create Pivot Table reports and Page Field reports on large databases to display quick summaries
- Compare various outcomes in spreadsheets by analyzing data with scenarios and goal seeking

8 Weeks | 5.0 CEU | Tuition \$995 plus course materials

Schedule:

July 24 – September 15, 2006
October 23 – December 19, 2006
March 12 – May 4, 2007

Microsoft Excel 2003 (Online) is also available by module:

Microsoft Excel 2003: Introduction (Online)

SPRD7878T

3 Weeks | 1.8 CEU | Tuition \$495 plus course materials

Schedule:

October 10-30, 2006
January 22 – February 9, 2007
June 11-29, 2007

Microsoft Excel 2003: Intermediate (Online)

SPRD8878T

3 Weeks | 1.8 CEU | Tuition \$495 plus course materials

Schedule:

November 6-28, 2006
February 26 – March 16, 2007
July 9-27, 2007

Microsoft Excel 2003: Advanced (Online)

SPRD9878T

3 Weeks | 1.8 CEU | Tuition \$495 plus course materials

Schedule:

January 8-26, 2007
April 9-27, 2007
July 30 – August 17, 2007

How secure is your data?

**Master of Science in
Network Security from
Capitol College, a Center of
Academic Excellence
in Information Assurance
(IA) Education**

Capitol College is one of a select number of institutions named by the National Security Agency as a National Center of Academic Excellence in IA Education. Courses are available online and are taught by some of the nation's leading experts in the field of network and information security. The Graduate School, USDA and Capitol College have come together to offer professionals and specialists an online Certificate in Security Management. Learn to prepare for, respond to and recover from threats to information infrastructure. For information on the certificate, see page 70.

Completing courses at the Graduate School, USDA in Security Management offers participants an additional benefit: you may apply up to three of these courses toward the Master of Science in Network Security from Capitol College.

WORD PROCESSING

Microsoft Word 2003: Introduction

WORD7968T

Explore the fundamentals of word processing. Attendees learn to create professional-looking documents in Microsoft Word 2003. Basic operations such as creating, naming, saving and closing a document are covered. Additionally, participants change font settings and page formats; move, copy and delete text; create tables; use styles, numbers and bullets; and work with lists. This comprehensive introduction positions users to take full advantage of the powerful capabilities of this application.

What you will learn

- Basic Word start-up procedures
- Create and save documents, switch document view and change document magnification
- Editing and formatting techniques
- Headers, footers, page numbering, tabs and online help
- Preview a document, use Web page preview and print

Who should attend

This course is designed for users who want a thorough introduction to word processing.

Course Objectives

Upon completion of this course you will be able to:

- Create, name, save and close documents
- Organize documents using styles, numbers, bullets, lists, headers and footers
- Perform spell and grammar checks
- Compose tables, use table AutoFormat and draw tables
- Select, move, copy and delete text

Prerequisite: Knowledge of Microsoft Windows.

3 Days | 1.8 CEU | Tuition \$595

Schedule:

August 14-16, 2006 Washington, DC
October 10-12, 2006 Washington, DC
December 11-13, 2006 Washington, DC
February 12-14, 2007 Washington, DC
April 9-11, 2007 Washington, DC
June 18-20, 2007 Washington, DC
August 13-15, 2007 Washington, DC

Microsoft Word 2003: Intermediate

WORD8968T

The Microsoft Word Intermediate course builds on word processing basics by exposing participants to the more complex features within the application. Participants become proficient in searching files for text, inserting special characters, editing tables, sorting table data and importing spreadsheet data. Additional topics covered include: composing mail merge letters, envelopes and labels; sorting records and using an external data source.

What you will learn

- Inserting dates and symbols into documents
- Utilize auto format
- Working with drawing objects and inserting graphics
- Use of formulas in tables
- Importing Excel spreadsheets
- Use of templates, wizards, newsletter-style columns and HTML features

Who should attend

This course is designed for users who wish to build on the basics of word processing.

Course Objectives

Upon completion of this course you will be able to:

- Produce mail merge documents upon a data source using a main document
- Create, navigate and perform insertion operations on tables
- Apply borders and shading to text, page or tables
- Select or create templates and use wizards
- Apply Word HTML features and open a Web page
- Compose, paste and edit hyperlinks

Prerequisite: Microsoft Word 2003: Introduction (WORD7968T).

2 Days | 1.2 CEU | Tuition \$565

Schedule:

August 17-18, 2006 Washington, DC
 October 16-17, 2006 Washington, DC
 December 14-15, 2006 Washington, DC
 February 15-16, 2007 Washington, DC
 April 12-13, 2007 Washington, DC
 June 21-22, 2007 Washington, DC
 August 16-17, 2007 Washington, DC

Microsoft Word 2003: Advanced

WORD9818T

This three-day course focuses on advanced tips and techniques for full use of editing features and handling complex formats in Microsoft Word. Working with components of long documents and graphics is emphasized. Participants learn to communicate their ideas and share information anywhere, from the desktop to the Web.

What you will learn

- Toolbars and wizards
- Section breaks and newspaper columns
- Comments, styles and outline view
- Tables of contents, indexes and tables of authority
- Forms with text, check boxes and drop-downs
- Global templates

Who should attend

Experienced Microsoft Word users who wish to learn advanced concepts will benefit from this course.

Course Objectives

Upon completion of this course you will be able to:

- Utilize diagrams and charts
- Create, navigate and change newsletter-style columns
- Generate and customize lists
- Track revisions and mark up with comments
- Create indexes, bookmarks and tables of authority
- Process and merge documents

Prerequisite: Microsoft Word: Intermediate (WORD8968T).

3 Days | 1.8 CEU | Tuition \$595

Schedule:

August 28-30, 2006 Washington, DC
 October 18-20, 2006 Washington, DC
 February 20-22, 2007 Washington, DC
 August 27-29, 2007 Washington, DC

Microsoft Word Macros Using VBA

WORD9882T

This intensive two-day course is designed for experienced Microsoft Word users who wish to learn how to create and edit powerful macros to automate tasks. Instruction is given in the Visual Basic for Applications (VBA) language. Attendees build a customized program using macros, dialog boxes and toolbars and will work with advanced Word object features through VBA.

What you will learn

- Macro generation
- Variables, operators and Word functions and objects
- Forms processing and event handling
- Application and document control on the Internet

Who should attend

This course is designed for experienced and advanced Word users with an aptitude for programming who wish to customize their applications.

Course Objectives

Upon completion of this course you will be able to:

- Apply Visual Basic for Applications (VBA) in the creation of Microsoft Word macros
- Differentiate between objects and object models
- Utilize the Word Object model along with the Application, Document, Section and HeaderFooter object
- Design and compose a menu-based program
- Insert toolbars with forms and event handling within menu-based program

Prerequisites: Microsoft Word 2003: Introduction (WORD7968T), Microsoft Word 2003: Intermediate (WORD8968T) and Microsoft Word 2003: Advanced (WORD9818T).

2 Days | 1.2 CEU | Tuition \$595

Schedule:

October 23-24, 2006 Washington, DC

Cap + Gown + Diploma = Success

That's the new math in today's corporate world.

The Graduate School, USDA has joined with a number of outstanding colleges and universities to help make getting a degree convenient and cost-effective. These institutions will accept many of our ACE-evaluated courses for credit.

Visit www.grad.usda.gov/partners for more information.

Graduate School, USDA online courses are instructor-led and available on the Blackboard platform. Once you register for an online course the Graduate School will e-mail you your password and the information you need to access the course. Instructors design the 8-week and 3-week courses. The same instructors will assign and evaluate projects, providing feedback to the students regarding their progress. Instruction is enhanced through interactivity and through collaboration via discussion board and e-mail. Instructors are available via e-mail to answer questions.

Microsoft Word 2003 (Introduction through Advanced) (Online)

WORD9768T

This online, instructor-led course provides you with a comprehensive understanding of Microsoft Word, the most popular word processing package on the market today. Because many users are already somewhat familiar with MS Word, the Graduate School allows you to begin this course in any of the three course modules. If you are new to MS Word, then you should begin at Module I. If you have already mastered the contents of Module I (see the "what you will learn" section below), then begin with Module II. If you have already mastered the contents of Modules I and II, then begin with Module III.

MODULE I. Explore the fundamentals of word processing and learn to create professional-looking documents in Microsoft Word. Basic operations such as creating, naming, saving and closing a document are covered. Additionally, participants change font settings and page formats; move, copy and delete text; create tables; use styles, numbers and bullets; and work with lists. This comprehensive introduction positions users to take full advantage of the powerful capabilities of this application.

MODULE II. Building on word processing basics, this module exposes participants to the more complex features within the application. Participants become proficient in searching files for text, inserting special characters, editing tables, sorting table data and importing spreadsheet data. Additional topics covered include: composing mail merge letters, envelopes and labels; sorting records; and using an external data source. **MODULE III.** This module focuses on advanced tips and techniques for full use of editing features and handling complex formats in Microsoft Word. Working with components of long documents and with graphics are emphasized. Participants learn to communicate their ideas and share information anywhere, from the desktop to the Web. Collaborative editing of documents is also included.

What you will learn

MODULE I:

- Basic Word start-up procedures
- Create and save documents, switch document view and change document magnification
- Edit a document (select, cut, copy and paste text)
- Formatting techniques (font name, size and attributes; headings and other styles; margins, tabs and rulers)
- Headers, footers, page numbering and online help
- MS Word tables and AutoFormat
- Preview a document, use Web page preview and print

MODULE II:

- Inserting dates and symbols into documents
- Working with drawing objects and inserting graphics
- Use of formulas in tables
- Importing Excel spreadsheets
- Use of templates, wizards, newsletter-style columns and HTML features

MODULE III:

- Toolbars and wizards
- Section breaks and newspaper columns
- Comments, styles and outline view
- Track Changes feature and collaborative documents
- Tables of contents, indexes and tables of authority
- Forms with text, check boxes and drop-downs
- Global templates

Who should attend

Individuals who want to learn the fundamentals of word processing.

Course Objectives

Upon completion of this course you will be able to:

MODULE I:

- Create, name, save and close documents
- Organize documents using styles, numbers, bullets, lists, headers and footers
- Perform spell and grammar checks
- Compose tables, use table AutoFormat and draw tables
- Select, move, copy and delete text

MODULE II:

- Produce mail merge documents upon a data source using a main document
- Create, navigate and perform insertion operations on tables
- Apply borders and shading to text, page or tables
- Select or create templates and use wizards
- Apply Word HTML features and open a Web page
- Compose, paste and edit hyperlinks

GENERAL INFORMATION

General Information

When you take a course with the Graduate School, USDA, you benefit from our eight decades of experience, our wide-ranging curriculum and our faculty of outstanding professionals. We continually review and improve our classes and services to bring you the best possible learning experience. We are committed to helping you enhance your professional skills and advance your career. Since 1921, the Graduate School, USDA has helped more than two million students create their own success stories. We want you to be one of them.

About the Graduate School, USDA

The Graduate School, USDA takes pride in its reputation as an innovative institution for continuing education. The school was established in 1921 by the secretary of agriculture to provide individuals with opportunities for career advancement. Since that time, the school has helped more than two million people with their continuing education objectives. Each year the Graduate School, USDA enrolls more than 150,000 students. The school offers nearly 1,000 courses to help individuals improve job performance and further their careers. It assists all levels of government and other organizations by increasing efficiency, effectiveness and productivity. The Graduate School, USDA is a self-supporting organization and receives no appropriated funds. Its only sources of income are tuition and fees.

The Graduate School, USDA does not grant degrees and has never sought that authority. We prefer to offer a dynamic, continuing education program for working adults. Courses offering credit are of standard graduate and undergraduate quality and are taught by competent, experienced instructors. Adults who wish to pursue degree programs should verify with their college or university which credits will transfer before registering for courses at the Graduate School. The U.S. Office of Personnel Management accepts Graduate School, USDA credits for examination and qualification purposes on the same basis as those from accredited schools (see OPM's Qualification Standards for General Schedule Positions, Section II, Part E.4.(a), Acceptability of Higher Education).

General Policies

Guarantee

The Graduate School, USDA fully guarantees the quality of its courses and instruction. If you are not completely satisfied with a course, please contact us. You or your employer will not be charged for the tuition.

Inclement Weather/Emergency Policy

The Graduate School, USDA follows the federal government policies regarding closing or early dismissal due to inclement weather or emergencies. Weather-related announcements will be available on our Web site at www.grad.usda.gov. Classes missed due to these closings may be made up at a later date.



103.5 FM 820 AM

Listen for delays and closings on the WTOP Radio Network: 107.7FM, 1500AM, 820AM and on the Web at WTOPNEWS.com. The WTOP Winter Storm Watch airs at approximately :04 and :31 past each hour.

Training Accessibility

We make every practical effort to ensure that our training programs are accessible to physically-challenged students. Contact the registrar at (888) 744-GRAD at least four weeks before the course begins to discuss specific needs and arrangements. We can arrange for readers or interpreters for students who are visually or hearing impaired, provided we receive adequate notice.

Registrar (888) 744-GRAD

TDD (202) 314-3619

Course Credit Information

Certificates of Accomplishment

The Graduate School, USDA offers certificates of accomplishment for comprehensive study in multiple program areas. Two-thirds of the total number of credits must be taken at the Graduate School. One-third may be considered for waiver based on courses completed at other educational institutions and/or specific work experience. For more information, visit www.grad.usda.gov/certificates or contact the Customer Service Center at (888) 744-GRAD.

Continuing Education Units (CEUs)

Continuing Education Units provide a nationally recognized permanent record of your life-long learning experiences. In addition, the CEUs you earn in our training courses may be used to satisfy some of the requirements for our certificates of accomplishment.

You receive one CEU for every 10 hours of participation in our courses (excluding lunch and breaks). Completing our CEU/CPE registration form enables us to track and maintain your record of accumulated CEUs throughout your career, regardless of where you work.

Course Levels

The first numeric character in the course code number designates course level.

0001-0333 Enrichment and non-credit

1000-1999 Freshman-level undergraduate

2000-2999 Sophomore-level undergraduate

3000-3999 Junior-level undergraduate

4000-4999 Senior-level undergraduate

5000-5999 Graduate level

6000-6999 Expert level

7000-7999 Introductory short courses, workshops, specially arranged courses

8000-8999 Intermediate short courses, workshops, specially arranged courses

9000-9999 Advanced short courses, workshops, specially arranged courses, certificate programs

Transcripts

The Office of the Registrar maintains the official records of all students. All information is held in confidence and released only in accordance with the Family Rights and Privacy Act of 1974, as amended in 1995.

Transcripts are \$5.00 each and may be obtained by writing to:

Office of the Registrar
Graduate School, USDA
600 Maryland Avenue SW, Suite 120
Washington, DC 20024-2520

Payment should be in the form of personal check, money order, Visa, MasterCard, American Express, Diners Club or cashier's check. Allow two weeks for processing. Transcripts are not released to students who have outstanding financial obligations to the school.

Registration Information

Acknowledgement

We will acknowledge the receipt of your registration within five business days in writing or by e-mail. Please do not make your travel arrangements until you receive a confirmation letter for the class.

Class Cancellations

If circumstances cause us to cancel a class, we will retain the pre-paid tuition or paperwork until the student or employer informs us to either: (1) refund the money or return the paperwork; (2) transfer the money or paperwork toward tuition for another scheduled course for the same person; or (3) transfer the money or paperwork toward tuition for another scheduled course for another person.

Confirmation

Classes are confirmed in writing as early as possible, but no later than two weeks before the class begins. If you have not received your confirmation in a timely manner, please call (888) 744-GRAD to verify that we have received your registration.

Where included in the tuition, course materials are provided on the first day of class.

Course Hours and Attendance

Courses are conducted from 8:30 a.m. to 4 p.m.

Students are expected to complete the entire course and should make their travel arrangements accordingly. If you must miss any portion of a course, you must notify us and your employer. Failure to attend the entire course may result in not receiving credit or a certificate of training for the course. In addition, absences from the classroom may be reported to your employer.

Classes may be cancelled or dismissed early due to emergency or inclement weather when the federal government instructs employees not to report to work or dismisses them early. Classes missed due to these situations may be made up at a later date.

Discount Policy

The Graduate School, USDA does not discount its tuition or provide group rates. If you are interested in achieving cost savings for large groups, please inquire about the School's ability to contract with you or your organization for any of our course offerings.

GSA Federal Supply Schedules

Many Graduate School, USDA products and services are available through the GSA Federal Supply Schedule Program for training at your location. Under Schedule 69, the Graduate School provides contract training. The contract number is GS-02F-0107N. Under Schedule 874 (MOBIS) the Graduate School provides a wide range of consulting, facilitation and survey services. The Schedule 874 contract number is GS-10F-0228P. Additional information can be found on the Graduate School Web site at www.grad.usda.gov and on the GSA Web site at www.gsaadvantage.gov.

Payment of Tuition

You may register by submitting an approved training nomination form (SF182 or DD-1556), purchase order or your employer's training form. We also accept VISA, MasterCard, American Express, Diners Club, cash, checks or money orders (made payable to the Graduate School, USDA in U.S. currency). Whatever method you use, please be sure to include the following information:

- Student name, preferred mailing address, telephone number, e-mail address and position title
- Course title, dates, location and 9-character course code

If your employer is paying the course tuition, please also provide:

- Signature of the official responsible for approving employee training
- Approving official's name, work address and telephone number
- Employer's billing address and telephone number
- Purchase order number or billing numbers

Mail or fax the above information to the registrar as early as possible but no later than three weeks before the course begins to assure availability.

Tuition includes all required materials unless otherwise noted in the course description.

Graduate School, USDA Registrar
600 Maryland Avenue SW, Suite 120
Washington, DC 20024-2520

Phone: (888) 744-GRAD
(888) 744-4723
Fax: (866) FAX-GRAD
(866) 329-4723

Refunds

You may cancel your registration and receive a full refund if you cancel more than 14 calendar days before the program or class begins. After that date, you may substitute another participant or reschedule to another session if you cannot attend, but refunds will not be made.

Standby Lists

As a courtesy to our participants, we maintain a standby list once a maximum class size has been met. Popular classes fill early, so the earlier you register, the less likely this will affect you. If your course is full, you can be placed on the standby list. You will be notified if a space opens or if an additional class is scheduled.

Who Should Attend

Classes are open to everyone 18 years or older, regardless of education or place of employment. You are responsible for entering class with the required competence or prerequisites. When in doubt, please call us before registering. Courses are designed for government employees, government contractors and private citizens with a need for quality training in the subject area.

5 Easy Ways to Register

By Mail

Send your completed training authorization form to:

Graduate School, USDA Registrar
600 Maryland Avenue, SW, Suite 120
Washington, DC 20024-2520

By Fax

Fax your completed training authorization form to (866) 329-4723.

Online

Visit our Web site at www.grad.usda.gov.

By Phone

Call toll-free, (888) 744-4723, and have your credit card ready.

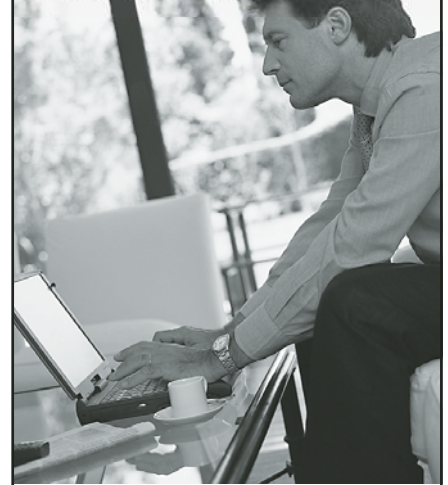
In Person

You can visit our offices, and we will be happy to register you.

An Equal Opportunity Provider

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation or marital or family status. Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.), should contact the registrar of the Graduate School, USDA at (888) 744-4723 (voice) and TDD (202) 314-3619.

No time for a classroom?



The Graduate School is responding to the changing needs of today's students with more distance education courses.

Our most popular offerings are now available online: All courses are instructor-led and use state-of-the-art delivery methods including Blackboard and Centra software. Highly experienced faculty members design the content to exceed your expectations and position you for greater career mobility.

Courses offered include:

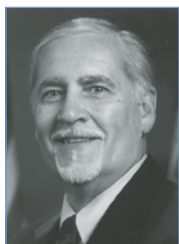
- Microsoft Office applications
- A+, Network+ and Security+
- Information assurance courses from the Capitol College Master of Science in Network Security

Because of our continually evolving distance education program, we anticipate a broad range of new offerings throughout the year. Please check our Web site frequently for courses that will meet your continuing education needs:

www.grad.usda.gov/onlineit

General Administration Board

The Graduate School is governed by a General Administration Board appointed by the secretary of agriculture. Board members are drawn from senior positions in government, business and academia.



Merle D. Pierson

Chair

Deputy Under Secretary for Food Safety,
Department of Agriculture



Keith J. Collins

Vice Chair

Chief Economist
Department of Agriculture



John R. Block

Senior Legislative Advisor
Olsson, Frank and Weeda, P.C.



Ambassador Ruth A. Davis

Distinguished Advisor for
International Affairs
Howard University



Carson E. Eoyang

Associate Provost for Executive Education
and Professor of Management
Naval Postgraduate School



Paul W. Fiddick

Private Sector
(Formerly Assistant Secretary
for Administration
Department of Agriculture)



Ernest J. Gregory

Private Sector
(Formerly Principal Deputy
Assistant Secretary for Financial
Management and Comptroller
U.S. Army)



Wayne H. Harmon

Associate Commissioner
Office of Training,
Social Security Administration



Mary E. Lacey

Program Executive Officer
National Security Personnel System,
Department of Defense



Patrick Mendis

Adjunct Professor,
Economics and Management
UMUC Graduate School,
University of Maryland



Susan Porter Robinson

Vice President,
Center for Lifelong Learning
American Council on Education



Warren Master

Editor-in-Chief
The Public Manager



Samuel T. Mok

Chief Financial Officer
Department of Labor



H. Dean Sutphin

Assistant Vice President for
International Outreach
Edward Via Virginia College of
Osteopathic Medicine
Virginia Polytechnic Institute
and State University



Linda McCullar Eaglefeather

Private Sector
(Formerly Director, Leadership and
Education, Internal Revenue Service)



Charles P. Nemfakos

Private Sector
(Formerly Deputy Under Secretary U.S.
Navy)



Linda J. Washington

Deputy Assistant Secretary for
Administration
Department of Transportation

INDEX

A

A+	
A+ Core Module	.40–41
A+ Core Module (Online)	.40
A+ Operating Systems	.42
A+ Operating Systems (Online)	.41
Certificate of Accomplishment – A+ Certification	.46
Access (Microsoft). <i>See</i> Microsoft Access	
Accessibility of training	.77
Acknowledgement of registration	.78
Adobe Acrobat	.13
Adobe Illustrator	.13
Adobe InDesign	.13
Adobe Photoshop	
Adobe Photoshop: Intermediate	.14
Adobe Photoshop: Introduction	.14
ASA 5500 series (Cisco)	.53
Attendance	.78
Authorized Cisco training. <i>See</i> Cisco authorized training program	

B

Business intelligence	
GIS applied to	.26
Business modeling	
enterprise architecture applied to	.19

C

Cancellation of courses	.78
Capital planning, IT	.62
Capitol College	
security management courses through	.65
Cartography	.23
<i>See also</i> Geographical Information Systems	
CCNA (Cisco Certified Network Associate)	.49
Certificate courses and programs	
A+	.46
Certified Information System Security Professional	.64
Cisco Boot Camp (CCNA certification)	.49
Enterprise Architecture	.21
GIS Professional	.28
GIS Technical	.27
Information Security Specialist	.69
Microsoft Certified Desktop Support Technician	.47
Network+	.42
Network+ (Online)	.42
Oracle 10g Database Administrator Certified Associate	.11
Security Management	.65, 70
Certificate of accomplishment	.77
in A+	.46
in Enterprise Architecture	.21
Certified Information System Security Professional (CISSP) Prep	.64
CEUs (Continuing Education Units)	.78
Cisco authorized training program	.48–58
Building Cisco Remote Access Networks (BCRAN)	.51
Building Scalable Cisco Internetworks (BSCI)	.50
Cisco Boot Camp	.49
Cisco Internetwork Troubleshooting (CIT)	.52
Cisco IP Telephony Part 1 (CIPT1)	.57
Cisco IP Telephony Part 2 (CIPT2)	.58
Cisco Secure Virtual Private Networks (CSVPN)	.55
Cisco Voice Over IP (CVOICE)	.56–57

course descriptions	48–58
general information	48
Implementing Cisco Intrusion Prevention System (IPS) v5.0	54–55
Implementing Cisco Quality of Service (QoS)	56
Implementing Cisco Voice Gateways and Gatekeepers (GWGK)	58
Interconnecting Cisco Networking Devices (ICND)	49
Introduction to Cisco Networking Technologies (INTRO)	48
IP Telephony Troubleshooting (IPTT)	57
Securing Cisco Network Devices (SND) v1.0	52
Securing Networks Using Cisco Routers and Switches (SNRS) v1.0	54
Securing Networks with PIX and ASA (SNPA) v4.0	53
Cisco Certified Network Associate (CCNA)	49
Cisco Systems	48
ASA 5500 series	53
internetworks	50, 52
intrusion prevention system	54–55
IP telephony	57, 58
networking devices	48, 49, 52
PIX 500 series	53
Quality of Service	56
remote access networks	51
scalable internetworks	50
security products and services	52, 53, 54
switches and routers	49, 54
virtual private networks	55
voice gateways and gatekeepers	58
voice over IP	56–57
Cisco Voice Professional Curriculum	56, 58
CISSP (Certified Information System Security Professional) Prep	64
ColdFusion (Macromedia)	31
Computer security. See Security (computer/information)	
Confirmation	
of courses	22, 78
of registration	78
Contact information	
for registration	79
TDD number	79
Continuing Education Units (CEUs)	78
Courses	
cancellation	78
confirmation	78
credits	77–78
guarantee	77
hours held	78
levels	78
materials	78
qualifications for	79
refunds	79

registration	78–79
standby lists	79

Credits	77–78
CEUs	78

Customer Service Center	77
--------------------------------	-----------

Cyberwarfare	69
---------------------	-----------

D

3D modeling	25
--------------------	-----------

Data architectures	18
---------------------------	-----------

Databases	5–9
course descriptions	5–9
Introduction to Database and Database Design	5
Microsoft Access 2003: Advanced Applications Development	7
Microsoft Access 2003: Advanced (Online)	7
Microsoft Access 2003: Intermediate	6
Microsoft Access 2003: Intermediate (Online)	7
Microsoft Access 2003: Introduction	6
Microsoft Access 2003: Introduction (Online)	7
Microsoft Access 2003 (Introduction through Advanced) (Online)	7
Oracle: Introduction	10
Oracle 10g Database Administration I: Implementation and Administration	11
Oracle 10g Database Administrator Certified Associate	11
performance enhancement courses	8–9
Spatial Databases and Database Development	24
SQL (Oracle 10g): Introduction	10–11
Systems Analysis and Design: An Introduction	8
Visual Basic, Version 6.0: Introduction	8–9

Desktop publishing	12–14
Adobe Acrobat: Introduction	13
Adobe Illustrator: Introduction	13
Adobe InDesign	13
Adobe Photoshop: Intermediate	14
Adobe Photoshop: Introduction	14
course descriptions	12–14
Desktop/Electronic Publishing: Introduction	12

Dreamweaver (Macromedia). See Macromedia Dreamweaver	
---	--

E

Electronic publishing. See Desktop publishing	
--	--

Emergency policy	77
-------------------------	-----------

Enterprise architecture	15–21
Applied Enterprise Architecture:	
Affecting Strategic Change	20
Certificate of Accomplishment in	21
course descriptions	15–20
Data Architectures	18
EA and Business Modeling	19
EA Organization and Governance	16

Facilitating EA Communication and Buy-In	19
Implementing an Enterprise Architecture	16
Introduction to Enterprise Architecture	15
Performance Reference Models and Linkage to Strategic Plans	17
program information	15
Service-Oriented Architectures – Components and Services	17
Technical Architectures	18
Environmental management	
GIS applied to	24
Equal opportunity, USDA policy on	79
ESRI ArcGIS 9.x	22
Excel (Microsoft). See Microsoft Excel	

F

Fireworks (Macromedia)	34
Flash (Macromedia)	35
FrontPage (Microsoft). See Microsoft FrontPage	

G

General Administration Board	80–81
Geographical Information Systems (GIS)	22–28
Cartographic Issues: Map Projections and Map Design ...	23
certificate programs	27, 28
course descriptions	22–28
GIS Applications: Business Intelligence	26
GIS Applications: Environmental and Natural Resource Management	24
GIS Applications: National and Homeland Security	26
GIS Applications: Urban Planning and Development	25
GIS Project Development and Process	23
GIS Tools and Techniques: GIS Program Development and Management	26
GIS Tools and Techniques: Raster and 3D Modeling	25
GIS Tools and Techniques: Remote Sensing for GIS	25
Introduction to GIS Software: ESRI ArcGIS 9.x	22
Introduction to GIS Technologies	23
Professional Certificate	28
Spatial Analysis Using GIS	24
Spatial Databases and Database Development	24
Technical Certificate	27
GIS Professional Certificate	28
GIS Technical Certificate	27
Graduate School (USDA)	77–81
accessibility policy	77
attendance policy	78
contact information	14, 18, 79
course cancellations	78
course confirmation	22, 78
course credits	77–78

course hours	78
course levels	78
equal opportunity policy	79
General Administration Board	80–81
general information	77–81
GSA Federal Supply Schedules	78
guarantee	77
history of	77
inclement weather/emergency policy	77
instruction through	7
persons with disabilities and	77, 79
qualifications for courses	79
refunds	79
registration	78–79
standby lists	79
transcripts	78
tuition payment	78

GSA Federal Supply Schedules	78
Guarantee	77

H

Homeland security	
GIS applied to	26
Hours of courses	78
HTML	
HTML Programming: Intermediate	32
HTML Programming: Introduction	32
HTML Programming (Introduction through Advanced) (Online)	32–33
Human interface design	33

I

Illustrator (Adobe)	13
Inclement weather policy	77
InDesign (Adobe)	13
Information security. See Security (computer/information)	
Information Security Specialist Certification Program ...	69
Information Security Essentials	69
Introduction to Cyberwarfare	69
Information technology infrastructure library (ITIL) ..	37–39
Change, Configuration and Release Management – Practitioner	38
ITIL Service Level Management – Practitioner	38–39
ITIL Service Management Foundation Course	37
ITSM Executive Awareness Seminar	37
Instruction via the Blackboard platform	7
Integration	
Microsoft Office 2003 Integration	29
Project Management for IT: Application and Integration ..	61
Voice Recognition Using Microsoft Office	30

Internet	31–36
ColdFusion Application Development	31
course descriptions	31–36
HTML Programming: Intermediate	32
HTML Programming: Introduction	32
HTML Programming (Introduction through Advanced) (Online)	32–33
Human Interface Design	33
Java: Introduction	33
Macromedia Dreamweaver: Advanced	34
Macromedia Dreamweaver: Introduction	34
Macromedia Fireworks: Introduction	34
Micromedia Flash: Introduction	35
Microsoft FrontPage 2003: Advanced	35
Microsoft FrontPage 2003: Introduction	35
Microsoft FrontPage 2003 (Introduction through Advanced) (Online)	36
XML for the Web: Introduction	36

Internetworks, Cisco	
scalable	50
troubleshooting of	52

Intrusion prevention system, Cisco	54–55
---	--------------

IP Quality of Service	
Cisco training in	56

IP telephony. <i>See also</i> Voice over IP	
Cisco training in	57, 58
troubleshooting	57

IT capital planning	62
----------------------------------	-----------

IT project management. <i>See</i> Project management	
---	--

IT security. <i>See</i> Security (computer/information)	
--	--

ITIIL. <i>See</i> Information technology infrastructure library	
--	--

J

Java	33
-------------------	-----------

M

Macromedia	
ColdFusion	31
Fireworks	34
Flash	35

Macromedia Dreamweaver	
Macromedia Dreamweaver: Advanced	34
Macromedia Dreamweaver: Introduction	34

Maps	23
-------------------	-----------

Master of Science in Network Security	65
--	-----------

MCDST Certificate	47
--------------------------------	-----------

Microsoft Access	
Microsoft Access 2003: Advanced Applications Development	7
Microsoft Access 2003: Advanced (Online)	7

Microsoft Access 2003: Intermediate	6
Microsoft Access 2003: Intermediate (Online)	7
Microsoft Access 2003: Introduction	6
Microsoft Access 2003: Introduction (Online)	7
Microsoft Access 2003 (Introduction through Advanced) (Online)	7

Microsoft Certified Desktop Support Technician (MCDST) Certificate	47
---	-----------

Microsoft Excel	
Microsoft Excel 2003: Advanced	72
Microsoft Excel 2003: Advanced (Online)	73
Microsoft Excel 2003: Intermediate	72
Microsoft Excel 2003: Intermediate (Online)	73
Microsoft Excel 2003: Introduction	71
Microsoft Excel 2003: Introduction (Online)	73
Microsoft Excel 2003 (Introduction through Advanced) (Online)	72–73

Microsoft FrontPage	
Microsoft FrontPage 2003: Advanced	35
Microsoft FrontPage 2003: Introduction	35
Microsoft FrontPage 2003 (Introduction through Advanced) (Online)	36

Microsoft Office	
Microsoft Office 2003 Integration	29
Voice Recognition Using Microsoft Office	30

Microsoft PowerPoint	
Microsoft PowerPoint 2003: Intermediate	60
Microsoft PowerPoint 2003: Intermediate (Online)	60
Microsoft PowerPoint 2003: Introduction	59
Microsoft PowerPoint 2003: Introduction (Online)	60
Microsoft PowerPoint 2003 (Introduction through Advanced) (Online)	60

Microsoft Project 2003	62
-------------------------------------	-----------

Microsoft Windows Server	
Implementing, Managing and Maintaining a Microsoft Windows Server 2003 Network Infrastructure	44
Managing and Maintaining a Microsoft Windows Server 2003 Environment	44

Microsoft Windows XP	
Implementing and Supporting Microsoft Windows XP Professional	44
Microsoft Windows XP: Introduction	43

Microsoft Word	
Microsoft Word 2003: Advanced	75
Microsoft Word 2003: Advanced (Online)	76
Microsoft Word 2003: Intermediate	74–75
Microsoft Word 2003: Intermediate (Online)	76
Microsoft Word 2003: Introduction	74
Microsoft Word 2003: Introduction (Online)	76
Microsoft Word 2003 (Introduction through Advanced) (Online)	76
Microsoft Word Macros Using VBA	75

Multilayer switched networks	50–51
---	--------------

N

- National security**
GIS applied to26
- Natural resource management**
GIS applied to24
- Network and operating systems**40–47
See also **Cisco authorized training program;**
Internetworks
A+ Core Module40–41
A+ Core Module (Online)40
A+ Operating Systems42
A+ Operating Systems (Online)41
Advanced Troubleshooting and PC Configuration43
Certificate of Accomplishment – A+ Certification46
certificate programs46–47
course descriptions40–47
Implementing, Managing and Maintaining a Microsoft
Windows Server 2003 Network Infrastructure44
Implementing and Supporting Microsoft Windows XP
Professional44
Managing and Maintaining a Microsoft Windows
Server 2003 Environment44
Microsoft Certified Desktop Support Technician (MCDST)
Certificate47
Microsoft Windows XP: Introduction43
multilayer switched networks50–51
Network+ Certification42
Network+ Certification (Online)42
remote access networks51
Troubleshooting and Maintaining the PC, Pentium II-IV
and Compatibles43
UNIX System V: Introduction45
virtual private networks55
- Network+ certification**42
- Network security.**
See also **Security (computer/information)**
Master of Science in65
- Networking devices (Cisco)**48
interconnecting49
securing52

O

- Office (Microsoft).** *See* **Microsoft Office**
- Operating systems.** *See* **Network and operating systems**
- Oracle**10–11
Oracle: Introduction10
Oracle 10g Database Administration I:
Implementation and Administration11
Oracle 10g Database Administrator Certified Associate11
SQL (Oracle 10g): Introduction10–11
- Oracle 10g Database Administrator Certified Associate
(OCA)**11

Orientation and professional skills

- Introduction to Information Technology4
IT Management and Administration for Technical
Managers and Technical Professionals4

P

- Payment of tuition**78
- PCs**
configuration43
troubleshooting and maintenance43
- Pentium II-IV**43
- Persons with disabilities**
accessibility policy77
program information in alternative formats79
- Photoshop (Adobe).** *See* **Adobe Photoshop**
- PIX 500 series (Cisco)**53
- PowerPoint (Microsoft).** *See* **Microsoft PowerPoint**
- Presentations**59–60
Microsoft PowerPoint 2003: Intermediate60
Microsoft PowerPoint 2003: Intermediate (Online)60
Microsoft PowerPoint 2003: Introduction59
Microsoft PowerPoint 2003: Introduction (Online)60
Microsoft PowerPoint 2003 (Introduction through
Advanced) (Online)60
- Professional skills**
Introduction to Information Technology4
IT Management and Administration for Technical
Managers and Technical Professionals4
- Project 2003 (Microsoft)**62
- Project management**61–62
Fundamentals of IT Management and Capital Planning62
Microsoft Project 200362
Project Management for IT: Application and Integration61

Q

- Quality guarantee**77
- Quality of Service (QoS)**
Cisco training in56

R

- Raster data model**25
- Refunds**79
- Registration**78–79
acknowledgement78
methods79
standby lists79
- Remote access networks**
Cisco training in51

Remote sensing	
for GIS	25
Routers, Cisco	49
securing networks using	54

S

Scalable internetworks	
Cisco training in	50
Security (computer/information)	63–70
Advanced Intrusion Detection Implementation	64
certification programs	69–70
Certified Information System Security Professional (CISSP) Prep	64
Cisco Secure Virtual Private Networks (CSVPN)	55
Computer Forensics and Incident Handling (Online)	66, 70
course descriptions	63–70
Fundamentals of Computer Security for Federal Information Systems	64
Information Security Essentials	69
Information Security Specialist Certification Program	69
Internal Protection (Online)	66, 70
Introduction to Cyberwarfare	69
Introduction to Information Security	63
Master of Science in Network Security	65
Network Systems Security Concepts (Online)	65, 70
Secure Information Transfer and Storage (Online)	65, 70
Securing Cisco Network Devices (SND) v1.0	52
Securing Networks Using Cisco Routers and Switches (SNRS) v1.0	54
Securing Networks with PIX and ASA (SNPA) v4.0	53
Security + (Online)	68
Security Management Certificate (Online)	65, 70
Vulnerability Mitigation (Online)	66, 70
Wi-Fi Wireless Networking Technology and Security	67
Wireless Laptop Setup and Security	68
Wireless Network Security (Online)	67, 70
Security (national/homeland)	
GIS applied to	26
Security Management Certificate (Online)	65, 70
Spatial analysis	
GIS Tools and Techniques: Raster and 3D Modeling	25
Spatial Analysis Using GIS	24
Spatial databases	24
Spreadsheets	71–73
Microsoft Excel 2003: Advanced	72
Microsoft Excel 2003: Advanced (Online)	73
Microsoft Excel 2003: Intermediate	72
Microsoft Excel 2003: Intermediate (Online)	73
Microsoft Excel 2003: Introduction	71
Microsoft Excel 2003: Introduction (Online)	73
Microsoft Excel 2003 (Introduction through Advanced) (Online)	72–73

Standby lists	79
Switched networks	
multilayer	50–51
Switches, Cisco	49
securing networks using	54

T

TDD numbers	79
Tech 2000, Inc.	48
Technical managers	
IT management and administration for	4
Technical professionals	
IT management and administration for	4
3D modeling	25
Training opportunities	
accessibility policy for	77
Transcripts	78
Troubleshooting	
Advanced Troubleshooting and PC Configuration	43
Cisco Internetwork Troubleshooting (CIT)	52
IP Telephony Troubleshooting (IPTT)	57
Troubleshooting and Maintaining the PC, Pentium II-IV and Compatibles	43
Tuition	
payment	78
refunds	79

U

UNIX System V	45
Urban planning and development	
GIS applied to	25
US Department of Agriculture	
General Administration Board	80–81
Graduate School (See Graduate School (USDA))	

V

Virtual private networks	
security for, Cisco training in	55
Visual Basic 6.0	8–9
Visual Basic for Applications (VBA)	
Microsoft Word macros using	75
Voice gateways and gatekeepers	
Cisco training in	58
Voice over IP. See also IP telephony	
Cisco training in	56–57
Voice Professional Curriculum (Cisco)	56
Voice recognition	
using Microsoft Office	30

W

Weather, inclement77

Windows Server (Microsoft). *See* **Microsoft Windows Server**

Windows XP (Microsoft). *See* **Microsoft Windows XP**

Word (Microsoft). *See* **Microsoft Word**

Word processing74–76

 Microsoft Word 2003: Advanced75

 Microsoft Word 2003: Advanced (Online)76

 Microsoft Word 2003: Intermediate74–75

 Microsoft Word 2003: Intermediate (Online)76

 Microsoft Word 2003: Introduction74

 Microsoft Word 2003: Introduction (Online)76

 Microsoft Word 2003 (Introduction through Advanced)
 (Online)76

 Microsoft Word Macros Using VBA75

X

XML36

Participant Name**

Last

First

Middle

ID Information**

Social Security Number or Date of Birth (Required)

Position or Title

Mailing Address**

Preference
Home or Office

Street

Suite/Floor/Apt #

City

State

Zip

Telephone**

Home Phone (Include Area Code)

Daytime Number (Include Area Code)

E-Mail Address

Fax Number

Course Information 1**

Course Code

Course Title

Course Date

Location

Tuition

Course Information 2

Course Code

Course Title

Course Date

Location

Tuition

Method of Payment**

Card Company

Account Number

Expiration Date

(MasterCard, Visa,
American Express,
Diners Club)

Cardholder's Name (as it appears on the card)

Cardholder's Telephone Number

Cardholder's E-Mail Address

How did you first hear
about this course?

- ☐ Printed catalog
- ☐ E-Mail
- ☐ Training Officer
- ☐ Brochure
- ☐ Friend/Colleague
- ☐ Advertisement
- ☐ Conference
- ☐ Graduate School, USDA
- ☐ Web site
- ☐ Another Web site
- ☐ Other _____

Check Number

Amount

Deferred Account Number

Employer/Agency Name

Mailing Address/Billing Address

PO # **(required if being billed)

Is a receipt required?

Y ____ N ____

Is an invoice required? (If yes, provide billing address and PO #**)

**Required Information

Name of Person Completing Form

Date

List names here if you are registering more than one student for the same course using the same credit card number.

2nd Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

3rd Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

4th Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

5th Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

Participant Name**

Last

First

Middle

ID Information**

Social Security Number or Date of Birth (Required)

Position or Title

Mailing Address**

Preference
Home or Office

Street

Suite/Floor/Apt #

City

State

Zip

Telephone**

Home Phone (Include Area Code)

Daytime Number (Include Area Code)

E-Mail Address

Fax Number

Course Information 1**

Course Code

Course Title

Course Date

Location

Tuition

Course Information 2

Course Code

Course Title

Course Date

Location

Tuition

Method of Payment**

Card Company

Account Number

Expiration Date

(MasterCard, Visa,
American Express,
Diners Club)

Cardholder's Name (as it appears on the card)

Cardholder's Telephone Number

Cardholder's E-Mail Address

How did you first hear
about this course?

- ☐ Printed catalog
- ☐ E-Mail
- ☐ Training Officer
- ☐ Brochure
- ☐ Friend/Colleague
- ☐ Advertisement
- ☐ Conference
- ☐ Graduate School, USDA
- ☐ Web site
- ☐ Another Web site
- ☐ Other _____

Check Number

Amount

Deferred Account Number

Employer/Agency Name

Mailing Address/Billing Address

PO # **(required if being billed)

Is a receipt required?

Y ____ N ____

Is an invoice required? (If yes, provide billing address and PO #**)

**Required Information

Name of Person Completing Form

Date

List names here if you are registering more than one student for the same course using the same credit card number.

2nd Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

3rd Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

4th Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

5th Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

Participant Name**

Last	First	Middle
------	-------	--------

ID Information**

Social Security Number or Date of Birth (Required)	Position or Title
--	-------------------

Mailing Address**
**Preference
Home or Office**

Street	Suite/Floor/Apt #
--------	-------------------

City	State	Zip
------	-------	-----

Telephone**

Home Phone (Include Area Code)	Daytime Number (Include Area Code)
--------------------------------	------------------------------------

E-Mail Address	Fax Number
----------------	------------

Course Information 1**

Course Code	Course Title
-------------	--------------

Course Date	Location	Tuition
-------------	----------	---------

Course Information 2

Course Code	Course Title
-------------	--------------

Course Date	Location	Tuition
-------------	----------	---------

Method of Payment**

Card Company	Account Number	Expiration Date
--------------	----------------	-----------------

Cardholder's Name (as it appears on the card)	Cardholder's Telephone Number
---	-------------------------------

Cardholder's E-Mail Address

(MasterCard, Visa,
American Express,
Diners Club)

**How did you first hear
about this course?**

- ☐ Printed catalog
- ☐ E-Mail
- ☐ Training Officer
- ☐ Brochure
- ☐ Friend/Colleague
- ☐ Advertisement
- ☐ Conference
- ☐ Graduate School, USDA
- ☐ Web site
- ☐ Another Web site
- ☐ Other _____

Check Number	Amount	Deferred Account Number
--------------	--------	-------------------------

Employer/Agency Name

Mailing Address/Billing Address	PO # **(required if being billed)
---------------------------------	-----------------------------------

Is a receipt required? Y ____ N ____

Is an invoice required? (If yes, provide billing address and PO #)**

****Required Information**

Name of Person Completing Form	Date
--------------------------------	------

List names here if you are registering more than one student for the same course using the same credit card number.

2nd Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

3rd Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

4th Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

5th Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

Participant Name**

Last	First	Middle
------	-------	--------

ID Information**

Social Security Number or Date of Birth (Required)	Position or Title
--	-------------------

Mailing Address**

Preference
Home or Office

Street	Suite/Floor/Apt #	
City	State	Zip

Telephone**

Home Phone (Include Area Code)	Daytime Number (Include Area Code)
E-Mail Address	Fax Number

Course Information 1**

Course Code	Course Title	
Course Date	Location	Tuition

Course Information 2

Course Code	Course Title	
Course Date	Location	Tuition

Method of Payment**

Card Company	Account Number	Expiration Date
Cardholder's Name (as it appears on the card)	Cardholder's Telephone Number	
Cardholder's E-Mail Address		

(MasterCard, Visa,
American Express,
Diners Club)How did you first hear
about this course?

- ☐ Printed catalog
- ☐ E-Mail
- ☐ Training Officer
- ☐ Brochure
- ☐ Friend/Colleague
- ☐ Advertisement
- ☐ Conference
- ☐ Graduate School, USDA
- ☐ Web site
- ☐ Another Web site
- ☐ Other _____

Check Number	Amount	Deferred Account Number
Employer/Agency Name		
Mailing Address/Billing Address	PO # **(required if being billed)	

Is a receipt required? Y ____ N ____

Is an invoice required? (If yes, provide billing address and PO #**)

**Required Information

Name of Person Completing Form	Date
--------------------------------	------

List names here if you are registering more than one student for the same course using the same credit card number.

2nd Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

3rd Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

4th Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address

5th Participant
Information

Last	First	Middle
Social Security Number or Date of Birth (Required)		Position or Title
Street Address	City	State/Zip
Home Phone	Daytime Phone	E-Mail Address



I really have to get the whole team trained by next month.



Good grief, they cut my budget again!



Why can't we find a course better suited for us?



I just can't afford to have Chuck's whole department out of town for a class.

Have you talked to us lately?

Our prices are now more competitive than ever.

Any of our regularly scheduled classes can be tailored to meet the unique needs of your organization. Training is available in a traditional classroom setting, through a variety of distance education methods and at your location. We offer a wide range of customized products and services, from case studies and needs assessments to entirely new programs and learning management systems.

**Budgets are tight — let us help you do more with less.
Same great products. Same great quality. Better prices.**



For more information on our courses, services and new pricing, call (888) 744-GRAD or visit us on the Web at www.grad.usda.gov.

**Spatial analysis, map
projections, satellite
imagery, GPS, database
development and more.**

See page 22



**Comprehensive
GIS curriculum.
We are here.**

**What can Cisco®
technology do
for you?
Let us
show you.**



**The Graduate
School is a
Cisco® Authorized
Training Center.
See page 48**

**GS GRADUATE
SCHOOL^{USDA}**

**600 Maryland Avenue SW
Suite 270
Washington, DC 20024-2520**

090C-06

Change Service Requested

**Non-Profit
Organization
U.S. Postage
PAID
Richmond VA
Permit No.
930**